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ABSTRACT

Purposes of this project were to organize an operational teaching-learning center at Nevada's Stewart Indian School and to provide teachers with the required in-service instruction in the use of media and teaching resources. The media center is designed around the theory that inquiry, self-direction, and independent study must be based on a trust in student ability to carry through a self-directed and teacher-directed study program. The in-service program has 3 major components: (1) the development of basic understanding of media utilization, (2) the conducting of 2 one-day workshops and numerous conferences with individual teachers, and (3) the provision of an intensive 2-week media workshop for selected teachers. Implementation of the media center is discussed in the document in terms of existing facilities, student needs, staff requirements, selection and accessibility of materials, need for cultural enrichment materials, and evaluation. The appendix contains such items as a diagram of facilities, a pupil behavior and attitude checklist, and a bibliography of California and related Indian materials. (LS)

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PART I

OVERVIEW

The rationale for the development and operation of an instructional materials center or media center is based upon two obvious facts: (1) Our children and youth are living in a rapidly changing and complex society, and (2) the growth of knowledge overwhelms the imagination. Because of these conditions, no one medium of communication is adequate to the task demanded of our schools. Each medium -- printed pages, films, records, TV, radio, and so on -- has particular strengths and weaknesses depending on the learner and the subject. Only the use of a wide variety of materials -- the multi-media approach -- can help to overcome the limitations of any given type of material. Since the multi-media approach is an integral part of modern education, the problem of how to organize a program for its utilization is a real one.

An effective media program must be geared to the learners and their special needs. We know that our schools will be servicing larger numbers of students; that these students will be highly mobile which in turn brings educational problems into the classroom; that the range of student abilities will increase as educational opportunities become greater; that students will bring into the classrooms broadened and enriched backgrounds reflecting an exposure to wide communications in life; and that many of the students will have intense problems of an emotional, social or psychological nature. The concern for the learner must take priority over all other factors at the Stewart Indian School. Here are individuals who represent a broad background of experiences and patterns of living. In many respects these students are a great challenge because of their varied backgrounds. However, they also provide an excellent opportunity to apply the best of what we know about new media to the teaching-learning process. These students want to learn. They want to develop the competencies and skills required for successful living. And they also want to learn in ways that are challenging, satisfying and rewarding.

Along with our concern for the learners, we must recognize the great growth of knowledge of the past and the continued rapid expansion in the future. Man is today discovering, classifying, and recording new information at a phenomenal rate -- essentially doubling our fund of knowledge every ten years. The knowledge explosion is upon us and it will continue to increase.

Briefly, here are some present day happenings:

1. Eighty percent of the legislation presented to the last session of Congress involved science and mathematics.
2. Half of the chemicals now in commercial use were unknown in 1950.
3. Nine out of ten of the prescriptions written today could not have been written ten years ago.
4. If we were to handle today's telephone calls using the equipment of thirty years ago, every female in the United States between seven and seventy would have to work full time.
5. In fifteen years, more than 600 peace time uses of atomic energy have been developed.
6. There are more than 5,000 types of businesses today that did not exist when Sputnik was launched in 1957.

7. In 1968, Americans spent twenty-five percent of their income on products that were not on the market in 1955.

8. The amount of scientific information published around the world every twenty-four hours would fill seven complete twenty-four volume sets of encyclopedia. Reading around the clock, day after day, one man would need about 450 years to cover one year's output.

No one can foresee an end to the discovery and application of new knowledge. So the teacher has the problem of keeping up to date on new knowledge. More and more teachers will have to depend on professional compilers and interpreters of knowledge -- people who read and study basic sources and prepare secondary materials, such as textbooks, films, filmstrips, audio recordings, teaching kits, programmed materials, etc. Thus, teachers must know and skillfully use dependable learning resources and they must develop skills in assessing their accuracy and validity. Teachers along with the students will be appraising these new materials and will be developing instructional models designed for learning the essential things.

Another development of importance is the broader school curriculum that is an outgrowth of the knowledge explosion. As new knowledge forms, there is pressure to give it special recognition in the schools through the addition of courses. As the curriculum expands in scope, there is less time to devote to any single part. And teachers often find themselves teaching content that is relatively new to them. Inevitably, the tendency is to "cover ground" by treating the text material superficially. There are too few opportunities for students to study in depth the important topics and problems.

The application of the new media to the teaching-learning process can help to better meet the unique needs of the learners and simultaneously do justice to the expanded reservoir of knowledge. As educational media become an integral part of the instructional process, the quality of education will improve through greater individualization of learning, a greatly enriched library of learning resources, and possible cost reductions per unit of learning. Instructional technology appears to be the one answer to meeting the challenge of variability of human learners and the knowledge explosion.

Implementing an instructional program using new media involves two basic developments, namely, the establishment of a media center for student and faculty use, and the use of media by faculty members in the regular classrooms. These two facets of the program complement each other. Together they result in a changed environment for learning.

One of the needs in developing a media center is for a different type of program than most school libraries profess to offer. A strong media program is a full-time "demonstration project." Each phase, each individual activity, each student/staff combination may be based on no previous similar experience, but each is guided by staff conviction that the pleasure of accomplishment must be accompanied by the right to fail and try again, by the "security to take risks."

Perhaps the larger difference is in the attitude of the media center and the rest of the school staff toward student responsibility. The media center is designed, constructed and directed around the contemporary theory that inquiry, self-direction and independent study must be based on a trust in student ability to carry through a self-directed and teacher-directed study program again accompanied by the right to succeed or fail, in a reality-based learning experience.

It is possible to visit instructional materials centers where this philosophy is obviously not in practice. Over-concern with loss of materials, locked doors on many media center rooms, stringent rules for media center use, insufficient budgets -- all offer evidence of lack of faith in students' willingness to assume a larger part of the responsibility for educating themselves. Questions directed toward these conditions are answered in terms of lack of concern by administration, fear of student misconduct, or administrative red tape problems.

The entire school faculty is a part of the strong media center program. Selection of materials, instruction of students, and coordination of presentations all involve more than the media center staff. Staffing involves people: specialists (the classroom teachers), generalists (the media center personnel), and administrators (school administrators and media center administrators). A media center staff which calls on all this talent for information or assistance, and which concentrates on knowing which materials and techniques can best serve these specialists, best serves its school.

It was the purpose of this contract to organize an operational teaching-learning media center at the Stewart Indian School and to provide teachers with the required in-service instruction in the use of media and teaching resources to utilize the available materials and equipment.

This report is designed to specify the outcome of this program, to offer suggestions as to continuation and/or coordination, and to provide the Stewart Indian School administration and staff the necessary information to more fully utilize the Media Center as it is now established in the school system.

PART II

SCOPE OF THE STUDY

The University of Nevada will develop material and organize multimedia programs and audio-visual devices into a teaching-learning resource center for students generally lacking social understanding of a Non-Indian way of life.

1. Organize and catalogue multilevel materials and devices on hand and available to Stewart Indian School to facilitate use of these materials.
2. Conduct in-service training to the staff in the effective use of the materials and devices.
3. Determine best methods for the staff to present above materials to motivate students.
4. Determine the most productive use of available equipment and devices to stimulate learning by students.
5. Advise staff as to proper maintenance and use of the teaching-learning resource center.
6. Develop Culture-oriented teaching materials insofar as possible.

0.0 Mission Objective:

Develop, organize and install a teaching-learning resource center to be called a media center with materials and equipment available to the Stewart Indian School. The school administration will select teachers who will receive instruction in the use of the media center and methods of using materials.

1.0 Appraise the facility

2.0 Assess student needs

3.0 Assess staff requirements

4.0 Develop media center

5.0 Develop, install and operate in-service program

6.0 Develop culturally orientated materials

7.0 Evaluate total program relative to objective

1.0 Appraise facility:

  1.1 Assess proposed location of IMC

  1.2 Evaluate facility's appraisal methods

2.0 Assess student needs

- 2.1 Appraise projected needs of graduating students
- 2.2 Assess future plans of attending students
- 2.3 Sample parents' objectives for students
- 2.4 Appraise school's objective relative to student needs
- 2.5 Evaluate student needs assessment phase

3.0 Assess staff requirements

- 3.1 Appraise individual teaching assignments
- 3.2 Determine educational preparation of staff
- 3.3 Assess administrators' expectations of teachers
- 3.4 Evaluate staff requirements assessments

4.0 Develop, install and operate a media center

- 4.1 Select and catalogue instructional materials and equipment
- 4.2 Establish procedures for operation
- 4.3 Develop line of responsibility for media center operation and methods
- 4.4 Put media center into operation
- 4.5 Determine future requirements and program to meet future educational needs of the Stewart Indian School
- 4.6 Evaluate installation and operation of media center

5.0 Develop, install and operate training program

- 5.1 Design in-service program
- 5.2 Hold in-service program
- 5.3 Evaluate in-service program

6.0 Develop culturally orientated materials

6.1 Assess culturally orientated materials available

6.2 Provide cultural enrichment information about community resources available for teacher and student use

6.3 Provide outside consultant services where needed

6.4 Evaluate material developmental processes

7.0 Evaluate total program relative to objective

- 7.1 Assess student reaction to the media center program
- 7.2 Assess teachers' judgment concerning entire program
- 7.3 Provide methods and means for monitoring the circulation of the equipment
- 7.4 Obtain testimony of administration that the media center is truly operational
- 7.5 Produce and deliver all necessary reports

PART III

APPRAISAL OF FACILITIES

In studying the present facilities, we have taken into consideration how they could be used or modified to provide accommodations for the Media Center. The appraisal of the Stewart IMC facilities may be divided into the following categories: (1) Environment, (2) Location and Space, (3) Equipment, (4) Materials.

1. Environment

The Center should:

A. Be inviting in appearance

B. Have good lighting

C. Undergo acoustical treatment

D. Be comfortable to users in terms of temperature and humidity

E. Have carpeting or other noise reducing material

A. Inviting In Appearance

The present facility needs to be modernized and humanized. Better use of these facilities in terms of displays of student and individual projects, changes in colors, arrangements, and the application of some fundamental interior decoration ideas should be employed. A look at creative ways to modify the present library should be a priority item for the new library staff. As much as possible, the appearance of the library should reflect the cultural background of the people whom it serves.

B. Lighting

The present lighting, while adequate, should be modified so as to (1) allow use of individual lights in individual study areas, and (2) permit installation of electrical outlets for use with self-learning equipment.

C. Acoustical Treatment

Replacement of ceiling tiles should be effected with better appearing and more functional tiles.

D. Comfortable to Users

The rooms are controlled individually concerning heat. Because of the August and May heat it is recommended that adequate air conditioning be installed.

E. Carpeting

Carpeting would enhance the appearance of the facility as well as reduce noise and maintenance problems.

2. Location and Space

The Center is at present the library plus an equipment room. The library, while adequate in terms of library alone, needs modification and enlargement. These modifications are necessary for:

1. Additional space for individual viewing, studying, and learning.
2. Conference rooms
3. Small group viewing and listening
4. Information services

The following areas should be developed. Footage figures are minimum as recommended by the Standards for School Media Programs.

1. Administration - Office and Planning
2. Workroom, 300-400'
3. Maintenance Room, 120-200'
4. Media Production, 800-1000'
5. Dark Room, 150-200'
6. Materials Storage, 200'
7. Equipment Distribution and Storage, 400-600'
8. Center for Professional Materials for Faculty, 600-800'

Diagrams are attached showing present floor space and recommendations for immediate modification.

Library Hours and Staffing

At present the library is open only a few hours per day. It is recommended that adequate staff be hired to allow the library to be staffed with both professional and para-professional personnel with the responsibility of organizing book and non-book materials into a single integrated system (see Part VI, page 35, for a discussion of this system.) In addition, the hours of the staff should be arranged to allow the facility to be open:

1. During school hours
2. During evening hours (6-9 p.m.)
3. Saturdays, 9-12

As personnel becomes available, it is recommended that the possibility of being open all day Saturdays be considered.

Future plans would call for the study of the feasibility of satellite centers in other areas on the campus such as a Reading Center and a Vocational Training Center.

3. Equipment

No attempt is made in this report to specify the amounts or types of equipment classed as storage or shelving. It is however recommended that functional cabinets in terms of specific storage be acquired to replace shelves that are inadequate or designed for other purposes. We have worked directly with the Stewart Staff in terms of specific recommendations in this area. This is also true of office and library furniture as well as the basic office and library equipment, e.g., typewriters, file cabinets, etc. We have followed the Standards for School Media Programs as published by the American Library Association and National Education Association and a report of IMC requirements for a model 500-student boarding school (dated November 27, 1968 signed by Mr. Edgar L. Whyte, Director, Instructional Service Center, Brigham City, Utah) in developing our recommendations for the additional equipment needed to meet the multi-media approach at Stewart.

TYPE EQUIPMENT	NO. ON HAND	WHYTE'S STANDARDS	BASIC ALA STANDARDS	ADDITIONAL NEEDED
16 mm Projectors	8	23	14 - 27	15
8 mm Projector Super Single	4	45	30 - 70	41
242 Slide Projector	3	42	10 - 46	15 (See slide viewers)
Filmstrip Projector	4	25	16 - 49	20 (See F/S viewers)
Sound Filmstrip Projector	5	--	6 - 11	5
Overhead Projector	16	35	47 - 49	20
Opaque Projector	3	4	4 - 5	1
Filmstrip Viewers	1	--	60 -180	179
Slide Viewers	3	--	--	50
Record Players	12	8	6 - 14	0
Audio Tape Recorder (Includes Cassette)	17	10	7 - 24	6
Individual Audio Tape Recorder (Includes Cassette)	0	--	--	50
Listening Station	5	12	15 - 45	15
Earphones	--	--	200	200
Projection Carts	15		1 per portable piece of equipment	25
Projection Screen Portable	13 2		30 - 45 10	25 5

(Continued on next page)

TYPE EQUIPMENT	NO. ON HAND	WHYTE'S STANDARDS	BASIC ALA STANDARDS	ADDITIONAL NEEDED
Closed Circuit TV	1		Complete distribution system	See Video Proposed
Portable Video	1		3 - 9	
TV Receiver	1 (Media Center)		30 - 40	30
Radio Receiver	6		3	0
Micro Projectors	0		2	2
Micro-Reader	0		4	1
Micro-Reader Printer	0		1	1
Copying Machine	2		2 - 3	0
Duplicating Machines	3		2 - 3	0
Graphics:				
Diazo	1			
Dry Mount	2			
Carrells	18			
Light Control				
Local Production Equipment				

In the recommendations submitted, we are considering equipment and facilities for a functional program including a basic individualized program. It should be noted, however, that a specialized program such as reading or math will necessitate additional specialized equipment and facilities.

4. Materials

The following recommendations for materials are based on the same standards as equipment:

RECOMMENDATIONS FOR STEWART OF A BASIC COLLECTION FOR THE MEDIA CENTER

TYPE	ON HAND	WHYTE'S STANDARDS	ALA STANDARDS	RECOMMENDED
Books	4,800 Volumes	20,000 Volumes	10,000 Volumes	15,000 Volumes
Magazines	10 Titles	175 Titles	125 Titles	175 Titles
Newspapers	3	10	6 - 10	10
Films - Sound 16 or Super 8	147	--	Access to 3,000 titles	500 Titles Access to 3,000
Filmstrips	692	2,000	1,500	2,000
8 mm Single Concept	232	500	750	750
Tape, Disc and Cassette	70	3,000	3,000	3,000
Transparencies and Masters	--	2,000	2,000 +Masters	2,000
Slides	--	2,000	--	2,000
Graphics:				
Art Prints	None	1,000	1,000	1,000
Study Prints	3	500	625	500
Posters, Pictures	--	--	--	--
Globes	7	--	20	20
Maps	Few	Sufficient available for each region studies and special maps, wall maps.		
Other Materials:				
Programmed Instructional Materials		As Needed		
Realia (Models, Dioramas)				
Kits				
Art Objects				
Video Tape Recordings				
Microform				

PART IV

STUDENT NEEDS

The focus of the teaching-learning process is on the student and his behavior. We know that in every classroom there is a variety of intellectual capacities, a great range of experiential backgrounds, and a wide variation in aspirations and motivations for learning. We know that instruction, to be effective, must be geared and designed for the learners' maturity and experience levels. Thus, an important phase of curriculum planning is a thorough study of individual differences among the learners. The resources used in the school should be determined by what we want our students to know, how we want them to behave, and what level of accomplishment we wish them to achieve. Teachers must state objectives for student learning in terms of desired student behavior, and this can only be achieved through a comprehensive study and diagnosis of the learners.

In many respects, the students of Stewart are typical of their age group. In general, one can say that (1) each learner is a behaving organism, (2) each learner is a goal-seeking organism, (3) each learner reacts to whole situations, (4) each learner reacts as a whole, and (5) each learner reacts in a unified way. These characteristics have a profound effect on curriculum development and the selection of media.

But the student population of Stewart also has some special characteristics that must be recognized. The majority of the students has lived in isolation on reservations where the English language was seldom spoken. They have not been exposed to a variety of work opportunities and cultural experiences. For the most part, life has been limited and narrow in terms of educational opportunities. A majority have attended public schools and have found it difficult to compete with Non-Indian students.

Another factor of significance is the family background of many of the Stewart students. A large proportion of the students are from broken homes. They have not had close associations with parents who were concerned with their development.

Dropouts

Recent research conducted by the Southwestern Cooperative Education Laboratory, Albuquerque, New Mexico, indicates that Southwestern Indians (Arizona, New Mexico, Nevada, Utah, Colorado) have a dropout rate of 38.661 between the 8th and 12th grades. Stewart Indian School draws students from the states represented by the above study. More than seventy percent are social and academic dropouts from public schools.

Handicapped Students

A majority of the students coming to Stewart are emotionally and socially handicapped due to a number of factors. Many students come from broken homes or are in the custody of welfare or probation agencies. Other students have exhibited delinquent behavior prior to enrollment at Stewart;

incidents of drinking and chronic glue-sniffing reveal the presence of a number of emotionally handicapped students.

Educationally Disadvantaged

Although all students at Stewart are English speaking, the majority are bilingual and were raised in homes where English was seldom spoken. Not only do students have difficulty in learning the syntax of English, but also they are handicapped in their understanding of concepts and idioms unique to English.

Social Isolation

The majority of students lack meaningful contact with non-Indian life and have failed to succeed in the non-Indian public school system. Grade levels or ages of children range from two years pre-high school - 4 years secondary.

Knowing all these factors and the extreme variability among the student population is only the first step in curriculum planning. What are the implications when one begins to develop learning experiences? How can one best meet the wide individual differences that are prevalent in every classroom? How can media be effectively utilized in learning situations?

A very helpful basis for thinking about media-use is a listing of ten conditions for effective learning formulated by Tyler. These have many implications for utilizing media in the teaching-learning process.

1. The student must have experiences that give him an opportunity to practice the kind of behavior implied by the objective.

2. The learning experiences must be such that the student obtains satisfactions from carrying on the kind of behavior implied by the objective.

3. The motivation of the learner, that is, the impelling force for his own active involvement, is an important condition.

4. Another condition is that the learner finds his previous ways of reacting unsatisfactory, so that he is stimulated to try new ways.

5. The learner should have some guidance in trying to carry on the new behavior he is to learn.

6. The learner should have ample and appropriate materials on which to work.

7. The learner should have time to carry on the behavior, to practice it until it has become part of his repertoire.

8. The learner should have opportunity for a good deal of sequential practice. Mere repetition is inadequate and quickly becomes ineffective.

9. Another condition is for each learner to set standards for himself that require him to go beyond his performance, but standards that are attainable.

10. The tenth condition, related to the ninth, is that to continue learning beyond the time when a teacher is available, the learner must have means of judging his performance to be able to tell how well he is doing. Without these means, his standards are of no utility.[1]

---

[1] Ralph W. Tyler, "New Dimensions in Curriculum Development," Phi Delta Kappan, Vol. 17, No. 1, September 1966, p. 27.

PART V

STAFF REQUIREMENTS

The faculty of Stewart is educationally typical of many schools within the area. Approximately one-fourth of the teachers have Masters' degrees and the others have Bachelors' degrees or equivalent. In terms of recent exposure and study of new developments in instructional technology, one finds considerable variation. Also one notes considerable variation in the use of media within the classroom.

Most of the teachers are teaching within their area of specialization; however, there is a need for an expanded curriculum which may require some faculty members to instruct in areas outside of their field of preparation. There is also the ever present problem of helping faculty members to keep up-to-date with developments in their fields of specialization. Knowing "what to teach" is extremely important, but knowing "how to teach" is equally challenging. This is where the wise use of new media can make a significant impact on learning.

In Part VII of this project report, a lengthy discussion is given on the competencies needed by teachers to successfully use media in the teaching-learning process. This discussion is therefore limited to a consideration of the relationships of media to educational objectives.

The most perplexing problem faced by a teacher is decision-making regarding what type of media to use in order to accomplish a certain objective. Assuming that a variety of types are available, the professional must decide which one or ones would be most valuable. Considerable study and research have been devoted to this problem. But much more still needs to be known about the learning process. On the following page is a chart which represents one author's efforts to match instructional media with the learning objective. It is to be noted from the chart that any one medium might be rated high, medium, or low depending on the specific objective that is desired. Thus, the value of media is determined primarily by the learning objective.

INSTRUCTIONAL MEDIA STIMULUS RELATIONSHIPS TO LEARNING OBJECTIVES

Instructional Media Type	LEARNING OBJECTIVES: Learning Factual Information	Learning Visual Identifications	Learning Principles, Concepts, And Rules	Learning Procedures	Performing Skilled Perceptual Motor Acts	Developing Desirable Attitudes, Opinions And Motivations
Still Pictures	•		•	•	X	X
Motion Pictures	•				•	•
Television	•	•		•	X	•
3 D Objects	X		X	X	X	X
Audio Recordings	•	X	X	•	X	•
Programmed Instruction	•	•	•		X	•
Demonstration	X	•	X		•	•
Printed Textbooks	•	X	•	•	X	•
Oral Presentation	•	X	•	•	X	•

☐ High • Medium X Low

William B. Allen, Audio-Visual Instruction, Vol. 2, No. 1, January 1967, p. 28.

Discussions with individuals relative to the relationship of media type to learning objectives brought out many points of view. Another important dimension worthy of consideration is the academic area and the wide range of media competency of the staff members. Certainly some staff members of Stewart could become involved in some experimentation focused on this problem.

The operation of the Media Center will require additional competencies of the staff. What learning objectives can be accomplished in individualized experiences with which type of media? What is the impact on learning when several media are used simultaneously, such as, multi-media presentations, or just combining audio with visual? What media should be used when reteaching? What is the impact when the media type is combined with the printed resources? These and many more questions deal with the fundamental issues of teaching and learning.

The faculty of Stewart is ready and willing to become involved in an in-service program designed to (1) develop the needed competencies for using media, (2) consider in depth some of the unanswered questions regarding the relationship of media and objectives, and (3) devise new ways to achieve the objectives by using the multi-media approach.

PART VI

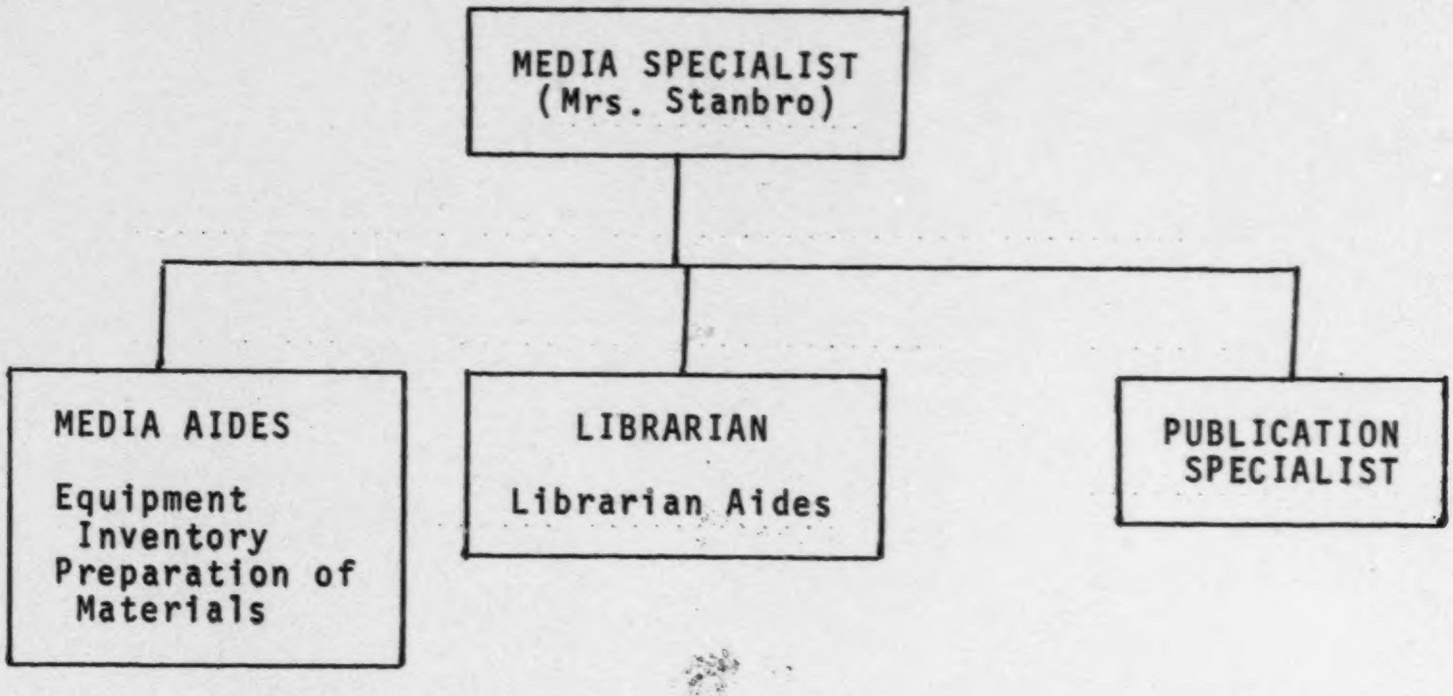
DEVELOPMENT OF MEDIA CENTER

Like so many media programs that have developed over the past few years, the Stewart I.M.C. had its inception on the basis of response to immediate needs rather than in response to long-range objectives. As a result of the concern on the part of Mr. William Whipple, Mr. Jim Simpson, and their administrative staff, this project to develop the Media Center into a functional and integral part of the Stewart instructional program was begun.

Installation and Operation of Media Center

It became apparent from the beginning of this project that the main thrust towards implementing this program must come from adequate and complete staffing, appraisal and utilization of present facilities, in-service and orientation of faculty.

Staffing has been slow because of budgetary and time requirements, but the hiring of Mrs. Sybil Stanbro as Media Specialist to supervise the program is a giant step toward solving what is perhaps the most immediate problem. Recruitment is proceeding at the present time toward hiring a librarian, media aides, and publications specialist. It is expected that the staff ultimately will consist of:


MEDIA SPECIALIST
(Mrs. Stanbro)
MEDIA AIDES
Equipment
Inventory
Preparation of Materials
LIBRARIAN
Librarian Aides
PUBLICATION SPECIALIST

The possibility of including the Fine Arts Department within this area is also being considered.

We have already noted under Section III - Appraisal of Facilities - the changes in the location and environment which should be made. Under the supervision of Mrs. Stanbro and with the approval of the administration, many changes have already been accomplished.

Equipment has been catalogued and repairs effected on that which could be repaired. It should be noted that it is absolutely necessary to allot adequate resources towards good preventative maintenance as well as routine mechanical problems. The catalogue cards of the equipment have been set up so that repair history as well as utilization can be noted. Under Section III - Appraisal of Facilities - recommendations were made as to number and type of equipment in the Center, as well as recommendations for standards to be achieved. A statement on our recommendation for a basic collection of materials in the Media Center is found in Section III.

The following is our recommendation for selection and cataloguing of media.

Selection of Materials

Standards for the selection of materials and making these resources easily accessible are necessary for:

1. The provision of materials of good quality in the school;
2. Optimum use of these materials by teachers, students and the staff of the Media Center;
3. The functional and efficient organization of materials.

Policy for the selection of materials for the Media Center as adapted from the A.L.A. standards includes:

1. Stewart should have a written statement of selection policy formulated and endorsed by the school administration, media specialist and staff, and faculty.
2. The collection should meet the requirements of the various curricular areas and provide for:
    a. The diverse learning skills of their students representing all levels and types of ability;
    b. The interest and research needs of the student through materials which are rich in breadth and depth in the subjects covered.
3. Media selection, distribution and use should reflect current trends in education and communication.
4. Selection of materials by a process of competent evaluation will be expedited by consulting reviews, recommended lists, standard bibliographic tools and special releases.
5. The selection of materials, while a cooperative activity on the part of teachers and curriculum specialists, must by necessity depend heavily upon the media specialist. The decision to allocate media resources in one area or another must, in the final analysis, be the decision of the school administrator based on recommendations of the media specialist.

6. Materials will be planned and created within the Media Center by teachers, students, media specialist and technicians when they are not available commercially. These materials may be supplemental as well as basic.

7. Evaluation of the materials in the collection is a continuous process. It must be based on:

    a. Suitability

    b. Accuracy

    c. Values

    d. Up-to-dateness

    e. Style

Accessibility Of Materials

The goals of the Stewart Media Center should be:

1. To provide maximum availability of all materials and equipment to both teachers and students.

2. To promote maximum utilization of materials by placing as few obstacles as possible between users and materials.

3. To effect as complete a "physical" integration of materials as can be achieved.

Recommendations

Each type of material supplements and reinforces each of the others and, whenever possible, they should be physically housed with, or at least adjacent to, other material on the same subject. If maximum utilization is to be achieved all materials must be housed and displayed in such a manner as to be easily accessible to the teacher and to the student. It is our recommendation that filmstrips, 8 mm loops, tape recordings, etc. be shelved alongside books on the same subject.

It is also recommended that the Dewey System presently used in book cataloging be employed with materials. At present, some of the materials are so classified and as soon as proper staffing is acquired, work will be done toward integrating the rest into the system. The advantages of integrated shelving are:

1. The library user is able to locate in one place many sources of information on the same subject.
2. The employment of several media to locate information is suggested to the user; this helps to reinforce the concept of multi-media learning.
3. The poorly oriented library user often can locate materials more easily.

It is recommended that "The Organization of Non-Book Materials in School Library" be used as a source reference for the Library Media Center staff. This excellent booklet was produced under the direction of Harry J. Skelly, Chief, Bureau of Audio Visual and School Library Education, State of California, Department of Education.

For a complete catalogue of materials now in the Media Center at Stewart, see the Appendix.

Budget

In determining budget requirements for the Media Center, a five-year plan has been designed (see Appendix.) This plan will allow Stewart to arrive at the recommended standards in approximately five years. If the opportunities for additional funds become available, the goals may be reached at a more accelerated rate, allowing for additional innovative ideas to be implemented.

Two additional areas, for example, which could be justified on the basis of their influence on the increased utilization of instructional materials would be:

1. Video Studio and Closed Circuit Broadcast Facilities
2. Publication Center

PART VII

IN-SERVICE PROGRAM

The rapid development of instructional technology and innovations in the "what and how" to teach has placed the re-education of teachers as the most important problem facing schools. How can teachers successfully teach with new media when they do not understand the operations or the goals to be achieved? How can teachers get maximum educational value from the media when they themselves have never learned by means of the media? These are fundamental questions which must be answered in a comprehensive in-service education program.

The needs of the teachers at Stewart were about the same as those of teachers in other school systems. The one advantage at Stewart was the availability of a wide variety of audio-visual equipment and materials. In addition, there was a recognized desire among the teachers to learn more about the equipment and materials and ways to utilize them effectively in the educational program.

The in-service program undertaken had three main parts: (1) the development of basic understandings of media utilization; (2) the conducting of two one-day workshops and numerous conferences with individual teachers; and (3) the provision of an intensive two-week media workshop for selected teachers. Each of these divisions of the program will be discussed.

Basic Understandings of Media Utilization

One of the important concerns was to help each teacher to develop a clearer picture of the value and role of media in the instructional program. The "why" was considered important. Through small groups and individual conferences the following values were developed:

1. Audio-visual media provide teachers with the means of extending and enriching the learners' experiential background. This point was considered very important for the students at Stewart.
2. Audio-visual media help teachers provide meaningful sources of information about the curriculum areas. Students must be provided learning experiences of a more concrete nature than verbal symbols.
3. Audio-visual media provide teachers with the means of guiding and controlling the desirable responses of the learner in relation to stimulus materials of the learning situation. Within the media center students have directed learning experiences with media materials and equipment without the physical presence of the teacher.
4. Audio-visual media provide teachers with interest-compelling springboards into a wide variety of learning activities. Media materials open up new opportunities and challenges to learning.
5. Audio-visual media provide teachers with ways of overcoming physical difficulties of presenting subject matter. New audio-visual equipment provides the teacher with a variety of ways of presenting the content.
6. Audio-visual media provide teachers with rich resources of pupil purpose when communicative materials are produced jointly by students and teachers. New learning opportunities become available as the creative abilities of students are harnessed in developing learning resources.
7. Audio-visual media provide teachers with ways to diagnose, prescribe, and present remedial work demanded by a modern instructional program. New media, such as the video camera, tape recorder,

motion picture camera, etc., can be effectively used in correcting learning disabilities.

The above values of media were considered basic to the in-service program. Opportunities were available in both oral and written form for the teachers to respond to each of the stated values.

This logical question naturally followed the discussions on the values of using media. What competencies should teachers have in order to effectively use the media and to direct students' learnings in utilizing the media? Again small group discussions and individual conferences identified these proposed competencies:

Competency 1: The teacher should recognize the various types of media and their characteristics.

Competency 2: The teacher should recognize instructional situations in which learning achievement can be facilitated by appropriate use of media.

Competency 3: The teacher should be able to design clear and specific instructional objectives for teaching-learning situations.

Competency 4: The teacher should be able to select media appropriate to specific teaching-learning situations in terms of knowledge, learner needs, and the characteristics of the media type.

Competency 5: The teacher should be able to locate sources of media appropriate to specific teaching-learning situations.

Competency 6: The teacher should be able to produce simple media not commercially available.

Competency 7: The teacher should utilize media in terms of sound principles of learning and of the instructional objectives sought.

Competency 8: The teacher should utilize appropriate combinations of media in a systems approach to instruction.

Competency 9: The teacher should evaluate and modify his use of media in terms of achievement of instructional objectives.

The teachers of Stewart varied considerably in the degree to which they had these nine competencies. All teachers agreed that these competencies were highly desirable and that provisions should be made to develop them in the in-service program. Thus, these competencies became the local point of the in-service program.

On-campus Workshops and Conferences

The intent was to organize and conduct six one-day workshops for all academic and vocational teachers. Through the interview method these six topics received the greatest support: (1) designing and making transparencies for teaching; (2) providing individualized learning experiences in a media center; (3) using films, film loops and filmstrips in teaching; (4) using audio experiences for independent study and small groups; (5) dry-mounting and laminating study prints; and (6) using better graphic arts in the classroom.

The first two topics were scheduled as workshops on February 20 and 27, respectively.

TO: *All Education Personnel*

FROM: *James C. Simpson, Principal*

SUBJECT: *Making Transparencies for Teaching*

The first of several in-service sessions will be held on Friday, February 20, from 8:15 A.M. to 4:30 P.M. The topic for Friday is Making Transparencies for Teaching. Mr. Tom Fine, Consultant for 3M, will be conducting this session. It will emphasize the *preparation of transparencies, overlays using the Thermo Fax and the 107 Copier. Here is the schedule:*

> *Mr. Fine will be in the High School and will conduct small group sessions during each of the six school periods. Teachers in the Academic and vocational areas are invited to be present during their free periods. From 3:15 to 4:30 P.M. Mr. Fine will hold a general session with all teachers. He will demonstrate some creative ways to use the overhead projector in the class room.*

. . . .

TO: All Education Personnel

FROM: James C. Simpson, Principal

SUBJECT: In-service Workshop - Individualized Learning Opportunities

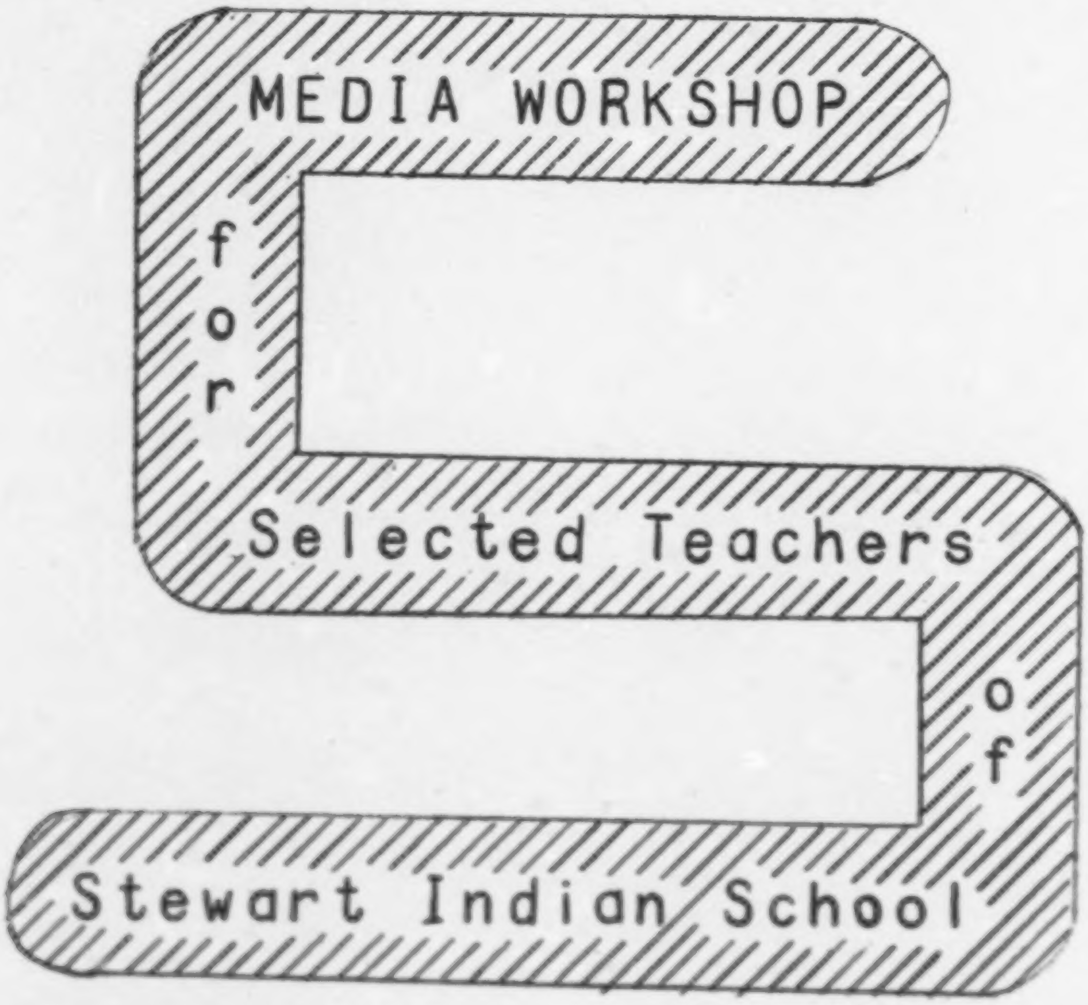
The second In-service Education Workshop will be held on Friday, February 27 from 8:15 A.M. to 4:00 P.M. The topic is Individualized Learning Opportunities. During this workshop each participant will have learning experiences with the Super 8 MM Single Concept Loops, Filmstrips, Filmstrips and records, mast teaching machine, and audio tapes and cassettes. Opportunities will be provided for each staff member to appraise the hardware and some of the software that is available in the High School.

Dr. Calvin H. Reed and Mr. Don Greene will be available to give assistance and guidance in the utilization of the learning resources. All teachers are invited to be present during their free periods. A general meeting of all teachers will be held from 3:15 to 4:00 P.M.

All meetings will be held in Room 115.

Because of the teachers' schedules and the conflicts with athletic events (3:15 to 4:00 P.M.) it was difficult to achieve the desired objectives. The teachers of Stewart carry heavy teaching loads and it is quite impossible to conduct effective in-service.

The third phase of the in-service program was the intensive two-week workshop, May 18-28, for selected teachers. The full report of the workshop follows:



MEDIA WORKSHOP for Selected Teachers of Stewart Indian School

Teaching and Resource Center
College of Education
University of Nevada, Reno

MAY 18-28, 1970

Participants in the workshop may register for two hours of undergraduate or graduate credit.

Education 420 - Audio-Visual Methods in Teaching
Education 908 - Problems in Audio-Visual Education

PURPOSES

The Administration of Stewart Indian School recognized a need for the academic and vocational teachers to make greater use of new media in the educational program. This workshop was designed to:

....develop skills in operating a variety of A-V machines.

....develop skills in making study prints, slides, transparencies, audio-tapes and other resources.

....develop skills in organizing and presenting a teaching lesson using the multi-media approach.

....develop an understanding of the "what, why and how" of instructional technology in education.

....develop an understanding of the place of instructional technology in the Stewart School and the steps to be taken in implementing the program.

....develop an understanding of the component parts of a media center and how a center is related to the instructional program.

THE FACULTY

Workshop Director	Dr. Calvin H. Reed, Professor of Education and Director of Teaching and Resource Center
Workshop Assistant Director	Allen V. Mundt, Resource Assistant and Media Specialist

Clyde Chantry, Director of Special Projects and Educational Consultant, Lassen County, Susanville, California

Dr. Kenneth Johns, Associate Professor of Elementary Education, University of Nevada, Reno

Linda Loeffler, Audio-Visual Production Specialist, University of Nevada, Reno

O. Richard Norton, Curator, Fleishmann Planetarium, University of Nevada, Reno

Dr. Donald Potter, Director, A-V Communication Center, University of Nevada, Reno

Charlotte Redpath, Fine Arts Education Specialist, Bureau of Indian Affairs, Phoenix Area Office

MEDIA WORKSHOP

Teachers of Stewart Indian School

Roster of Participants

Collett, Howard F.
Teacher-Counselor-Guidance, Boys Dept.

Crume, James C.
Art Teacher - High School

Drummond, Edythe L.
Phys. Science 9 - 12 (This year 1 semester of World History)

Fisher, Rhoda H.
Phy. Ed. Teacher & Health 7 - 12

Goodwin, Rosalie
Home Economics Teacher - High School and Pre-high

Greene, Dora Page
Inst. Aide (Girls Dorm) Age 14 - 16, Grades 7 - 9

Howell, Robert B.
Teacher, Vocational Subjects

Kinne, Robert A.
Teacher, Social Studies - Indian History & Culture

Malmstrom, Elda A.
Home Economics Teacher (Foods) 9 - 10 Grade Girls

Nelson, Stuart W.
Elementary (Presently teaching all academic Pre-High School)

Rucker, Ernest W.
Counselor, Individual & Group

Sammaripa, Lorren E.
Motor Vehicle Operator - Education Dept. Voc.

Skidmore, Clarence R.
Photography - Audio Visual Media

Stanbro, Sybil L.
Media - Arts Director

Tyler, Waldine M.
Teacher, English 1 Ninth & Senior Business English

Viner, Suzanne C.
Secondary English Teacher

DAILY AGENDA FOR

THE MEDIA WORKSHOP

Monday, May 18 — Stewart Indian School

The first session of the workshop will be in the auditorium of the Stewart School. All members of the Staff will be present.

10:30 A.M. - "New Ways to Learn" — Reed, Mundt
A demonstration of the various ways that new technology is being utilized to improve learning. A presentation using slides and transparencies.

Tuesday, May 19 — # 5 T&RC

9:00 A.M. - Registration and overview of the Workshop Expectations, goals, and plan of action — Reed

10:00 A.M. - "Revolution in Education" — Reed, Mundt
Films: Make a Mighty Reach - Resources for Learning

1:30 P.M. - Observation of multi-media presentations by future teachers.

3:00 P.M. - New audio-visual developments by the 3M Co. — Tom Fine

Wednesday, May 20 — # 5 T&RC

9:00 A.M. - "New Developments in Audio-Visual Learning Resources" — Reed, Mundt

Time	Group	Location
11:00 A.M.	Group A	T V-1
	Group B	G A-1
	Group C	Media Center-1
1:30 P.M.	Group A	G A-1
	Group B	Media Center-1
	Group C	T V-1
2:30 P.M.	Group A	Media Center-1
	Group B	T V-1
	Group C	G A-1

4:00 - 5:00 P.M. Happy Hour Optional
Dr. and Mrs. Reed would be privileged to have the workshoppers join us in our home at 1800 S. Marsh for refreshments.

Thursday, May 21 # 5 T&RC

9:00 A.M. - "Developing an Instructional Model Based on Behavioral Objectives."
Chantry

11:00 A.M. - Group A G A-2
Group B Media Center-2
Group C Media Center-2

1:30 P.M. - "Lift and Ammonia Processes in Making Transparencies."
#1 - Getchell Loeffler

Friday, May 22 # 5 T&RC

9:00 A.M. - "Coordination of Media Center with the Classroom Instructional Programs." An analysis of ways to use the Media Center in providing for large group, small group and individualized study.

Chantry

11:00 A.M. - Group A Media Center-2
Group B G A-2
Group C Media Center-3

1:30 P.M. - "The Super 8 and Your Teaching" # 1 Getchell

Potter

Monday, May 25 # 5 T&RC

8:45 A.M. - "Evaluating our Results in Using New Media in Learning"

Chantry

10:00 A.M. - Fleishmann Planetarium
"Audio-Visual Techniques in Planetarium Science Education"

Norton

1:30 P.M. - # 4 T&RC
"The Application of New Media to the Teaching of Science."

Johns

Tuesday, May 26		# 5 T&RC
9:00 A.M. -	Group A	T V-2
	Group B	G A-3
	Group C	Media Center-4
10:00 A.M. -	Group A	G A-3
	Group B	Media Center-3
	Group C	T V-2
11:00 A.M. -	Group A	Media Center-3
	Group B	T V-2
	Group C	G A-2
1:30 P.M. -	"Simple Graphics and Lay-Out in Education"	# 1 Getchell Loeffler

Wednesday, May 27		# 5 T&RC
9:00 A.M. -	Unstructured Activities. Time to complete projects and visit special learning centers on campus. The graphic arts room, T.V. room, and the media center will be available for individualized and small group work.	Reed
1:30 P.M. -	"Let's Shoot Some Film"	# 1 Getchell Potter

Thursday, May 28		
9:00 A.M. -	Our Television Production	# 7 T&RC Mundt
11:00 A.M. -	Evaluation, Next Steps & Critique	Reed, Mundt
12:30 P.M. -	Lunch Special Luncheon for very special people.	Sparks Nugget
2:00 P.M. -	The Staff wishes you a very enjoyable and rewarding summer. May the learnings of this workshop result in a better education for the students of the Stewart Indian School.	

Monday, May 18 New Ways to Learn

(Summary of presentation made to the entire faculty by Calvin H. Reed)

Education in the seventies will be far better than in previous decades because of the rapid changes being made in "what to teach" and "how to teach." It is obvious to all teachers that the content of mathematics, science, language arts and social studies is different. And equally exciting are the changes that are being made in how we teach or the methodology of the teaching-learning process.

For most of us there were only two ways for us to learn. We listened to the teacher and we read the printed page. But today we have a variety of ways to learn, thanks to new media and the application of technology to learning. Never before in the history of education have teachers had available such a wide array of hardware and software to challenge every learner.

We must remind ourselves of a few basic facts about learning. We learn from our experiences in using five sensory organs, namely, seeing, hearing, smelling, tasting and feeling.

A survey showed that:

We learn	We retain:
1% by taste	10% of what we read
1½% by touch	20% of what we hear
3½% by smell	30% of what we see
11% by hearing	50% of what we hear and see
83% by sight	

No longer can we afford to have students limit their experiences to the spoken words of the teacher and the printed words on the page. We must make available for student use the best that we know about new ways to learn.

What types of materials are we recommending? The basic items will include study prints, 2 X 2 slides, filmstrips with captions, filmstrip with records and tapes, audio recordings, 16mm films, 8mm single concept films, 8mm film loops, transparencies, programmed booklets, teaching machines, models, video tape recorders and multi-media kits.

The value of these learning resources to the teaching-learning process has been tested many times. We know that these learning resources when used properly: (1) make for more permanent learning; (2) contribute to the development of habits and skills; (3) lead to more voluntary reading; (4) and make learning more interesting resulting in self-motivation.

The Stewart Indian School should be the leader in using a wide array of learning resources because of the problems the learners bring to the classroom. Using these resources will result in several practical values for teachers.

1. The teacher can overcome the limitations of restricted personal experiences.
2. The teacher can overcome the limitations of the classroom as a center for learning.
3. The teacher can provide for the direct interaction of the learners.
4. The teacher can give initial concepts which are correct, real, and complete.
5. The teacher can awaken new desires and interests in the learners.
6. The teacher can provide motivation and stimulation to learn about events in the past.
7. The teacher can provide integrated experiences which vary from concrete to abstract.

Tuesday, May 19 Summary by

Howard Collett & Ernest Rucker

This second day of our media workshop got underway with some administrative details. To facilitate the workshop sessions it was agreed that two groups of five each and one group of six would be organized.

Group A	Group B	Group C
Collett, Howard F.	Crume, James C.	Fisher, Rhoda
Drummond, Edythe L.	Howell, Robert B.	Greene, Dora
Goodwin, Rosalie	Rucker, Ernest W.	Kinne, Robert A.
Malmstrom, Elda A.	Sammaripa, Lorrin E.	Nelson, Stuart W.
Skidmore, Clarence R.	Viner, Suzanne	Stanbro, Sybil L.
		Tyler, Waldine

The total group also agreed to accept responsibility for preparing a brief summary of each day's sessions.

The emphasis of the day's sessions was a logical follow-up for the opening day. The film, "Make a Mighty Reach" is a 45 minute color film dealing with school improvement through innovation. It focuses on the dramatic and dynamic changes taking place in American education today. A major emphasis in the film is that new ideas in education must be aimed at making learning easier and more efficient. Most of the film concentrates on the efforts of ten or twelve school systems which have taken front line positions regarding the knowledge explosion. The film was produced by Charles Kettering Foundation through the division of I/D/E/A.

This is an outstanding film for in-service programs, teacher meetings, or for general viewing by people interested in school improvement through educational media. It may be obtained from the A-V Communications Center, University of Nevada, Reno 89507.

Schools today are organizing the teaching-learning programs into three phases--the presentation, interaction, and independent learning activities. Another possible organizational pattern is to divide the activities into large group, small group and individualized learning. To highlight this pattern of organization the film, "Resources for Learning" was used. This 27 minute film vividly demonstrated how the various types of audio-visual materials could be used in each of the three phases. This was an excellent overview of the variety of media available to teachers.

In the afternoon we observed multi-media presentations by students in a college class. All of us gained new ideas as we saw the demonstrations in using several sensory organs in the learning process.

The explosion in new hardware was brought to our attention in the examination of new equipment produced by the 3 M Company.

Wednesday, May 20

Summary by

Sybil Stanbro
Syzanne Viner

After a cheerful "good morning" from Dr. Reed, the participants viewed a series of slides, "New Developments in Audio and Visual Learning Resources." The importance of matching the particular media with the individual needs and goals of the learner was a primary theme of this presentation.

A theory of teaching-learning that combines large-group presentations (ideally about 40%), independent study (40%), and small group interactions (20%) was presented as an improvement on the traditional "listen-read" learning situation. By using a variety of new media in the classrooms and Media Center we should be able to achieve this goal.

Further slides and class demonstrations concentrated on the utilization of display areas, the opaque projector, film strips, slides and tapes. During the discussion that followed, the point was made that many audio-visual learning resources are most effective when they supplement text/ditto-type materials.

At 11:00 A.M. the workshop participants separated into three groups and spent the rest of the morning and afternoon alternately visiting three areas of the Teaching and Resource Center:

1. The Media Center-participants were invited to develop skills with all the machines, to examine and evaluate the software, and to become familiar with catalogues, study prints, vertical files and curricular models.
2. The Television production room-participants were given instruction and direction on simple T.V. procedures, were free to discuss techniques, and viewed themselves on the monitor.
3. The Graphic Arts Department-participants were given instructions on the use of the dry-mounting press, the ektagraphic camera unit, the transparency copy unit, Wrico lettering guides and the self-teaching devices.

The day ended on a most enjoyable note as the workshoppers were invited into the home of Dr. and Mrs. Reed for a social hour. The guests were treated to refreshments, to viewing the hosts' Hawaiian slides, and to feeding the wild ducks in the back yard.

Thursday, May 21

The day began with "Developing an Instructional Model Based on Behavioral Objectives," with Mr. Chantry.

As an opener Mr. Chantry spoke of the importance of interaction between student and teacher. To establish interaction he had us, one at a time, say something good about someone in the group. Then each told something nice that had happened to himself recently. Finally, and seemingly most difficult for everybody, we were asked to tell something good about ourselves.

We then began an examination of behavioral objectives. The difference between objectives and goals was discussed. Terminology used in stating objectives, and writing objectives, and advantages gained from interactive instruction were covered.

At 11:00, the groups went to their respective assignments in the Graphic Arts Section and the Media Center.

In the afternoon Sister Charlotte Redpath, Fine Arts Educational Specialist addressed the group, emphasizing the importance of trying to be more creative teachers and people. She showed slides of things which could be used as examples of art in nature and in our surroundings to be used as a departure point for teaching students how to be more creative. Throughout her entire presentation, she continually stressed aspects of art related to culture, nature, and symbolism.

Helping children to be more creative by getting them involved in the preparation of teaching materials was discussed. Student creativity in doing something to share an experience with others - poetry, Indian surroundings, home life, story illustration - was given as a means of allowing opportunities for creative interaction in learning.

Creative ways to use overhead projectors and other A-V media were suggested. An unusual experience, a "happening" in which several movie projectors, overhead projectors, record players, tapes, etc., were used simultaneously, was related by Sister Redpath.

The importance of allowing opportunities for students to give expression to ideas in the manner in which they perceive things, rather than teachers imposing standards was stressed. Problems in verbalizing can be solved by allowing students to give visual expression to ideas that give them difficulty in speaking.

Following Sister Redpath's lecture and demonstration the group met with Linda Loeffler in Classroom #1, Getchell Library, where instruction was given on how to make transparencies with the lift and ammonia process. Each person performed the act of making transparency overlays of different colors. Then each person lifted a color print from a page and mounted it. A film showing lifting color with acetate and rubber cement was shown.

Friday, May 22

Summary by

Clarence R. Skidmore
Lorren E. Sammaripa

The morning session was divided into parts: From 9:00 to 11:00 with Mr. Chantry and from 11:00 to 12:00 with Sister Redpath. In the afternoon session an interesting and provocative presentation on the use of Super 8 medium in education was made by Dr. Potter.

Mr. Chantry clarified what an objective was. An objective is not a course outline; a standard is not an objective - it is a policy. Mr. Chantry pointed out some rules to follow in writing an objective: Who, What, and How. The objective must begin with the Who, the learner, the student, the pupil and What he is going to learn; How is how well he is expected to accomplish it. Mr. Chantry read the four best examples of an objective written by the class on the preceding day. It is probable the class will do a better job in writing objectives and this critique by Mr. Chantry was valuable to us and something we can use at Stewart, as we are all involved in setting up our own curriculum for Indian students. It was pointed out by Mr. Chantry that it is necessary for us, as teachers, to know where we are going and for the student to know where he is going and what is expected of him. In this way discipline is expressed by the student and is not teacher-centered. Most of our (teacher-discipline) problems are phased out and there is a better learning process going on and a better understanding between student and teacher. It is our opinion that the student becomes more involved with what he needs to do and becomes more functional.

The next period in the morning session was an experience we will treasure for a long time. Sister Redpath presented some materials to use and told us to be creative, use our imagination and bring out some of the culture we are part of and some of the things we are influenced by. The materials were rough and smooth, fine and coarse, such as red, white and blue solid colors in pieces of cloth; burlap; rawhide lacing; feathers; colored yarn; needles, thread, and cotton string; scissors and glue. Some of us became weavers; some of us became sculptors; and all of us were symbolists. We were told not to make a picture, but to create symbols. In the short period we had, we learned that using the same materials each one of us created something of himself and not one of the creations resembled any other. Now, can we use what we learned in this exciting session to create some experiences with Stewart students? We left this session with a haunting feeling that we could do much more with these simple materials.

The afternoon session was extremely interesting. Dr. Potter showed us some of the things that can be done with Super 8 camera with sound. The use of Super 8 film and camera should be used at Stewart by students. Students should be given the opportunity to produce motion pictures in Super 8 as it is inexpensive and is limited only by the imagination. Let them become involved. One roll of film is the limit, and a show lasting no longer than 10 to 15 minutes is enough.

Dr. Potter demonstrated time lapse single frame animation and cartooning using media confined to a space of about eight square feet. We learned how a sound tract is added to 8mm film and also about the use of synchronized tape in films. The Cassette tape recorder actually is attached to the camera and there is no loss of synchronization. He pointed out that expensive and sophisticated equipment is not necessary. What is needed is a camera with a good lens, F 1.8. The camera must have at least an 8 to 1 telephoto and be able to take single snapshots for animated effects or cartooning. A tripod is necessary to keep the wobbles away. The Super 8 film is contained in a cartidge of 50 feet of film and there is no loss of time in threading. With film that has a speed of 125 ASA or higher, the Super 8 camera becomes a very flexible and adaptable instrument. Why do we need Super 8 in education? It could not be more ably said than by the young actor son of Henry Fonda, Peter, in "The New Communicators" on Saturday evening at 7:30 on Channels 3-4: "The movie industry does not express what is wrong in our society - it is the youth - the present generation." They are doing it in Super 8 film. These young people are not rich - a $40 production may be very expensive to some of them. The films which were shown on this program did not run over 5 minutes in length; they were animations, symbols, and no human or living animal subjects were used in any of them. The films expressed the feelings of our generation about problems in our society much better than riots, revolts, and racism.

Monday, May 25

Summary by

Rosalie Goodwin
Elda Malmstrom

Dr. Reed gave a few introductory remarks and asked us to keep in mind specific ideas which could be applied to our classes at Stewart.

Mr. Clyde Chantry, Director of Special Projects and Educational Consultant, Lassen County, Susanville, California, spoke on "Evaluating Our Results in Using New Media in Learning." He discussed two types of evaluation: (1) process and (2) terminal. Process evaluation is continuous and allows one to make changes. Terminal evaluation is the final assessment of a program. In order to evaluate a program one must pre-test and pre-assess the group one is working with.

Contingency contracting or management may be suitable for children at any level. Mr. Chantry explained a successful program involving emotionally handicapped students. He believes in schools without failures and emphasized that it is the teacher who fails, not the child. Grades are a negative approach in evaluating a child.

"Audio-Visual Techniques in Planetarium Science Education" were demonstrated at the Fleischmann Planetarium by Mr. O. Richard Norton, Curator of the Fleischmann Planetarium. He explained the school program which is available to all schools in this area. Teachers are encouraged to discuss in advance the content of the program that their classes plan to attend. Poorly prepared classes with little readiness will not gain the educational advantages offered in these programs. A session in the class on the various topics of the program before and after the program will be invaluable to the students and is highly recommended. Mr. Norton gave us a most interesting demonstration of the techniques and equipment used to present his imaginative program.

Dr. Kenneth Johns, Associate Professor of Elementary Education, University of Nevada, discussed and demonstrated "The Application of New Media to the Teaching of Science." He showed several ingenious ways to use the overhead projector by using actual materials rather than transparencies and by projecting vertical experiments. A demonstration was given on using the film strip projector as a source of light for various experiments.

Dr. Johns believes that discovery teaching has a long lasting effect on children. Children will not discover terms, but they can discover principles and concepts through the use of experiments.

Tuesday, May 26

The morning sessions consisted of group participation; T V-2, Graphic Arts, and Media Center 3 and 4.

At 1:30 P.M., the participants met in classroom #1, Getchell Library for information on "Simple Graphics and Lay-Out in Education" presented by Miss Linda Loeffler.

Many materials were examined and worked with. These included: Posters and Bulletin Boards, Mounting, Lettering and Creating Cartoon Characters.

Tuesday's session was leading up to getting involved with Wednesday's afternoon session on "Lets shoot some Film" with Dr. Potter in charge.

Bernadette Thomas made the trip to the Media Center with our group, and she was quite thrilled to have been involved with the work we did in the Graphics Room and the Media Center. Beradette used one of the Audio-Notebooks in Sounds (Language Arts), and the 3M-107 Copier. She later made four dry mount picutres for her room in the dorm.

Wednesday, May 27 Summary by

Stuart W. Nelson

A forenoon of unstructured activities today enabled many or most of the participants of the Media Workshop to complete the bulk of their special projects and also gave us time to explore further the various types of media which can be used to advantage in our teaching next year. Different individuals and groups were busily making use of the T.V. Center, Graphic Arts, and the main Media Center itself, experimenting on their own, under their own initiative, seeing which form of media was best suited to their individual situation, which type of media would benefit them most in implementing a new approach to learning when utilized in the instructional program at Stewart. Although the Graphic Art Center seemed a more popular spot at various times, the Media Center itself was explored more thoroughly. At lunch hour, all participants voiced how much more they seemingly had accomplished on "their own" today, and how quickly the time seemed to pass during the many activities they had been engaged in.

Following luncheon, a good turnout of participants enjoyed an afternoon of filming animated 8mm Film Loops which could be used effectively in many different types of teaching or learning situations. Some of the originality portrayed in making these animated film loops almost put some of the Walt Disney productions to shame. The originality and creativity portrayed in different presentations again emphasized what an individual can do when there are resources available to work with.

In checking with all participants in this Media Workshop I am certain many innovations will be forthcoming at Stewart this next year, and with the beginning of a Media Center, it appears almost a certainty that much more creative and intensive teaching and learning will result. All participants today seemed to agree that once the Media Center becomes a reality at Stewart and the resources of this center are fully utilized, then the learning experiences of our students can be expanded to the fullest capacity of the individual, and the "failing" student will become past history.

THE VIDEO TAPE RECORDER

SUMMARY OF IDEAS BY ALLEN V. MUNDT

I. What is a video tape recorder?

"Video tape equipment records 'moving pictures' and sound on reels of magnetic tape much as a conventional audio-tape recorder records sound."

II. What equipment is involved?

"Audio tape recorders receive sound either from microphones, a radio, or by duplication from another recording. Similarly, video tape units record pictures from a TV camera, a TV receiver or by duplication from another recording. In addition, sound tracks on the video tape itself permit audio-recording from microphone or TV audio recorder on the same tape."

III. How does it work?

"Sound or visual signals are converted to electrical signals by a microphone or camera. Electrical current varies in direct relationship to the sound or picture and produces a comparable varying flux in an electromagnet (recording head). A plastic tape, coated with iron oxide, is passed through this changing magnetic field. Iron oxide particles on the tape are thus magnetized in specific patterns which correspond to the original sound or picture. When the process is reversed and the electric signal detected from the tape is amplified through a speaker or television tubes, the original sound or picture is reproduced."

IV. Characteristics of Video Tape:

A. What does it look like? (Various widths - 1/2", 1", 2")

B. Compared to movie film

1. Cheaper ($60/hr. vs $80/hr.)

2. Allows instant viewing

3. Can be re-used indefinitely (long-lived)

4. Erased when recording

C. Provides permanent record

D. Brand variations

63/64

E. Problems

1. Temperature control

2. Storage (vertical) and dust free

3. Tension

V. Uses of the Video Tape Recorder in Education:

A. Self-evaluation ("self-confrontation"). How do I look? How do I sound? Teachers become personally involved in the evaluation process. "Self analysis no longer depends on the subjective reactions of an observer." The variables involved due to memory and note-taking are eliminated. Tends to build confidence more than reverse. Most people are their own worst critics.

B. Demonstration of skill. Illustrates fine points involved in athletics, drama, dancing, debating, etc. (Commercial applications at ski areas, bowling alleys, driving ranges, dance studios, etc.) Stop-action capability.

C. Recording off-air broadcasts. Allows the scheduling of ETV programs or other broadcasts at your own convenience. (There appears to be no legal problem so long as the showings are for educational purposes and no fees are charged.)

D. Record the visiting expert. Present lessons from "the expert" in any field from anywhere.

E. Tapes received by mail. Saves time and money involved in an actual personal appearance.

F. Record your own lessons. Your lessons can be presented on schedule even though you may be elsewhere. (Allows for the use of mobile classrooms. Students do not have to miss normal classes simply because they are on team trips, etc.)

G. Improve the quality of lessons. Eliminates human variables. (Readily edited.)

H. Magnification. The students in the back row can see small details of the demonstrations. Ideal for scientific experiments, language training (to emphasize lip movements.)

1. Also amplies audio.

2. Cameras can be placed in positions inaccessible to the student (inside an oil well, an engine, the human stomach.)

3. Retains attention of entire group since device approaches 1-to-1 teaching ratio. "Every student has a front-row seat." (One 23" monitor/15 students is ideal.)

I. Condense massive areas.

J. Save the time and expense of repeating elaborate experiments with a permanent recording.

K. Lessons which require considerable repetition before learning takes place can be shown to advantage on tape. (Saves the teacher's energy for individual assistance.)

L. Documentation. Used by lawyers, surgeons, police, safety studies, air traffic controllers.

VI. Uses of the Video Camera and Monitor (without the recorder):

A. Can be used as a substitute for either overhead or opaque projectors using original material. (The making of transparencies is eliminated.)

B. Monitor Classroom or lab.

C. Monitor playground or hallways. (A unique TV camera and tube Westinghouse produces a clear picture when the human eye can see nothing. Called the "Secondary Electron Conduction" camera tube. Detects light so faint it won't register on photographic film. Used for night and day sports and news events without artificial light.)

D. Magnification. (See II (H).

VII. Problem Areas:

A. Newness

1. Rapid changes

2. Difficult to get unbiased information.

3. Lack of compatibility between brands and machines.

B. Expensive equipment

C. Operation of equipment

1. Moderately complex

2. Vidicon "burn" vulnerability

3. Color tones of subject (minor difficulty)

4. Head cleaning

EVALUATION AND ANALYSIS

THE FOLLOWING QUESTIONS WERE ASKED OF EACH OF THE PARTICIPANTS OF THE WORKSHOP:

1. What is your appraisal of the content areas covered in this workshop? Were they applicable to your teaching at Stewart?

The majority of the teachers rated the content and applicability as Excellent: The remainder were nearly evenly divided between Very Good and Good. Some typical comments were:

All of the content areas can be used at Stewart. All teachers ably demonstrated ability to use materials and to adapt them to the Stewart situation.

Covered enough so we could pick and choose for your specific field.

I would like to have spent more time in limited areas rather than have such a general coverage of so many areas.

I definitely feel that all of the materials which were exposed to us can be of great help for our students at Stewart.

2. One objective of the workshop was to increase your knowledge and understanding of new media. How well was this objective achieved?

The teachers were evenly divided between Excellent and Very Good in reaction to this question. Some typical comments were:

We were able to use equipment that we had not seen before. The use of the Super 8 in education was presented in a fascinating way by Dr. Potter.

It's surprising to learn the many different functions that can be implemented through the use of media hardware.

The workshop was a new experience for me. I gained much knowledge through learning to operate all the equipment shown.

3. Were effective methods utilized by the instructional staff in presenting the content?

Response to this question was divided between Excellent and Very Good. Some typical comments were:

Made very clear and directions were easy to follow.

The instructional staff did a terrific job in presenting content They were enthusiastic, patient and adaptable.

4. Were the physical facilities adequate for the sessions of the workshop?

Response to this question was divided between Excellent and Very Good. Some typical comments were:

Planetarium is quite an experience. All physical facilities are great.

Too crowded in Graphics Room.

All facilities were utilized to the maximum.

5. An important part of the workshop was the laboratory experiences in the Media Center, television and the Graphic Arts. What is your appraisal of these laboratory experiences in helping you to make innovations in Stewart?

The majority of the teachers rated the laboratory experiences as Excellent with the remainder largely in the Very Good category. Some typical comments were:

It was a "shot in the arm" for us. Gave us new ideas in working with simple materials and tools.

Lab experiences made this more fun and taught us skills you learn by doing. We became involved.

I feel that after an initial introduction of the material we could have benefited from more free time in which to pursue those areas which we found the most attractive.

Television should be a good experience for the students in the classroom as it was for me.

I enjoyed the lab experiences, but I had hoped to learn to use the TV camera.

Media Center excellent for reference and learning new equipment and catalogs.

Graphic arts - Making a complete log for all media materials and keeping everything in a central spot.

6. What three topics considered in this workshop should have the highest priority for implementation in Stewart?

Reaction to this question was varied. Teachers generally indicated a need for opportunities to produce software (slides, Super 8mm films, dry mounting and, to a lesser extent, video tapes), to make better use of hardware already available, and to develop a media center. Here are two responses listing priorities:

1st: The ready availability of whatever media the teacher requires when he requires it.

2nd: The establishment and efficient management of a media center.

3rd: Full student participation in the use and production of media material (i.e., 8mm films, dry mounting, etc.).

1st: Development of skills in organizing and present a lesson using the multi-media approach.

2nd: Develop skills in operating machines.

3rd: Coordination of media center with classroom objectives.

7. What three ideas do you plan to implement in your own classroom teaching?

Reaction to this question was also quite varied. Most teachers were quite specific in identifying types of hardware and software which they intend to use. Several expressed an interest in getting their students involved in using equipment and in making slides, etc. Others were more general. Some typical comments were:

Dry mounting.

35mm slide making. Transparencies.

Hook-and-Loop material for displays, demonstrations, etc.

Slide records of student work.

Opaque projector for mural painting.

Use of tape recorder and film strips.

Different ways of using the overhead projector.

Make more of my audio visual materials --involve the students.

Taking the student out of the classroom into the world by use of media.

8. What is your overall evaluation of the workshop?

The majority of the teachers rated the workshop in the Excellent category. Representative comments were:

Again, time was too short to avail oneself of all materials and techniques, but with ample samples we have learned many new ideas.

A lot of exposure in the media field in a short time. This workshop has sold me on the many useful ways and help that media has to offer to assist students in the learning process.

I could have gained more from it if I had been better prepared with time to develop different teaching units from my own material; supplement them with ideas that I have gained from the workshop. Hopefully there will be time to do that this summer.

This is the best way to stimulate and motivate teachers to use media by bringing them in direct contact with media in a workshop. In a period of 8 days I saw miracles happen. Teachers "did things with things" that they could only dream about. I believe that the work that the teachers did in the workshop was outstanding. The teaching is going to be good at Stewart in the coming school year.

Supplementary Evaluation

At the closing session of the workshop the sixteen participants were asked to do some "brainstorming" or "freewheeling" regarding the next steps for improving education at Stewart. This was strictly an idea-generating period with no effort made to establish priorities or to identify obstacles to implementation. Here then, is the list of ideas that were generated by the statement, "I would like to see this ________________ development at Stewart.

..*A similar media workshop could be designed and conducted at Stewart.*

..*The reading program at Stewart must reach all students. The best in professional competency should be employed to direct the program.*

..*There should be more continuity in educational plans and programs from one administration to the next. Too much money is wasted when programs are started and stopped.*

..*Teachers should become actively involved in educational planning and in selecting and evaluating learning resources.*

..*The adoption of flexible scheduling for courses would provide teachers with greater opportunities for utilizing new media.*

..*The school should have a larger budget for the preparation and purchase of learning resources.*

..*The "cracker-box" design of the classrooms should be modified to provide for greater freedom and better learning.*

..*Each department should be involved in designing the physical spaces for the teaching-learning process.*

..Each classroom should be properly equipped with screen, electrical outlets, window drapes and portable A-V equipment. Under the present conditions it is quite impossible to utilize to the maximum the A-V equipment that is currently available.

..The roof on the academic building should be repaired immediately.

..In using media it is important to have proper ventilation in the rooms. Portable fans could be used for circulating the air.

..Stewart needs a functional auditorium that is fully equipped for all types of media presentations.

..The teaching staff should become involved in helping to plan and develop the proposed Media Center.

PART VIII

CULTURAL ENRICHMENT MATERIALS

The project as originally planned included the development of enrichment materials of a cultural nature. Because of conditions and the short time span this phase had to be omitted. A bibliography of curriculum materials pertaining to the Indians is included in the appendix. It was prepared by educators in California and can be considered an example of the type of curriculum development that would be valuable to Stewart and the State of Nevada.

Without question there is a great need for new types of learning resources for Indian students. Some are available from commercial publishers but most will have to be prepared by teachers and competent authorities. It would seem logical that many of the resources originally designed for the white child should be rewritten and redesigned for the Indian. This requires much time and a high degree of competency in writing and producing materials.

It is recommended that Stewart Indian School consider several courses of action to accomplish the objective.

1. Release competent teachers from part or all teaching duties for a semester to develop materials in their curricular areas.
2. Sponsor special curriculum courses with emphasis on the development of learning resources.
3. Provide the film, acetate and other supplies plus the technical help for teachers to create materials.
4. Provide opportunities for selected teachers to work at the Instructional Services Center at Brigham City, Utah for short periods of time,

PART IX

EVALUATION

The evaluation reported in this section is based on interviews and observations with students, staff and the administration of the Stewart Indian School. A total of 29 members of the academic, vocational, and counseling and guidance staffs was involved in various ways in the planning and development of the program.

Thirty students, representing all organized campus groups, were involved through student council committees in determining basic needs, assigning priority objectives, determining procedures, and recommending methods of evaluation.

The overall concensus of those involved in planning was that the Media Center has the potential for bringing about an improved educational program and that it is critically needed. Its utilization as an integral part of the teaching programs will open up new learning opportunities and add new meanings for the learners. It was further agreed that the true evaluation will be realized as the Center becomes operative and teachers begin to use new media in the classroom programs.

A student attitude check list (see appendix) was developed as an integral part of the pre- and post-assessment. This assessment will be utilized as a part of the Media Center evaluation and as a part of the 1970-71 ESEA Title I project.

Especially important to the evaluation of the project was the enthusiastic acceptance of the Media Center approach by the 16 teachers enrolled in the Media workshop. (Reported in Part VII).

From the various sources the project consultants have identified a number of positive accomplishments and some steps for the future.

Positive Accomplishments

1. The employment of a Media Specialist and the creation of a Media Support Team have given strong support to the development of the Media Center and wider use of new media in the classrooms. The cornerstone of success in any educational program is personnel, and the Stewart School has taken action. Furthermore, the strong endorsement by the administration gives evidence that the program will be supported.
2. Definite progress was made in organizing and implementing a Media Center within the building. Some first steps have been taken and it would appear that progress will accelerate during the 1970-71 school year.
3. Especially important was the definite interest and positive concern of the faculty in developing and using a functional Media Center. Through individual interviews and from reactions of the workshop teachers a positive reaction to the use of media was determined.
4. The development of a Media Center received strong support from the Advisory Committee for the Stewart Indian School.
5. The financial support for educational media and equipment would indicate that continued support will be forthcoming and that the faculty can look forward to the development of sound educational programs.
6. The school has made a fine beginning in accumulating non-print learning resources, such as, a rental film library, film loops, tapes, filmstrips, etc.
7. The administration has recognized the need for professional assistance through consultant services in developing the Media Center and in providing in-service education. The rapid developments in instructional technology require the help of individuals who have specialized competencies in the area.

8. The faculty has demonstrated a strong enthusiasm and desire to create learning resources such as study prints, transparencies, slides, audio tapes, videotapes, etc. The involvement of teachers in developing resources is most encouraging.

Future Activities

1. A comprehensive media program will include the operation of a Media Center and the use of media in the classrooms. Priority should be given to the improvement of the physical features of the classroom, such as a screen properly mounted, convenient electrical outlets, darkening drapes or blinds, and proper ventilation. The administration must take steps to make it relatively easy for the teachers to use media as a part of the teaching-learning process.

2. Continued work must be devoted to the development of the Media Center, including more carrels and more software and hardware.

3. As the Media Center becomes functional there will be a need for several teacher and student aides to give supervision and assistance. The program for training these aides should be started in 1970-71.

4. A definite plan must be developed and carried out for the repair and maintenance of all media equipment. Unless this is accomplished immediately it will delay the program.

5. There must be a continuous in-service program for the faculty aimed at the better utilization of media in the educational program and the development of teacher prepared materials. New learning opportunities will become available as the faculty "turns to" in creating learning resources.

6. There should be greater involvement of the students in using the hardware and software in the Media Center and classrooms. A program should be undertaken to develop the needed skills and understandings among selected students.

7. The crucial question faced by every school is present at Stewart, namely; How can a comprehensive Media Center be utilized and coordinated with the ongoing classroom program of instruction? Or, how can individualized learning experiences become an integral part of the teaching-learning process? There is no simple or single

answer to this question. The mathematics department may decide on one type of procedure while the science department will use a different approach. The answer must be found through the discussions and studies of the in-service program.

8. A continuous evaluation program must be developed and implemented as soon as possible to give the faculty and administration answers to such questions as: How are the students using the Media Center? Are the individualized learning experiences becoming an important part of the teaching-learning process? Why and why not do the academic departments have students use the Media Center? What has happened to learning outcomes during the utilization of the Center? What problems have been encountered in using the Center? These and many more questions need to be answered through the evaluation process.

APPENDIX A

DIAGRAM OF FACILITIES

Deleted because of illegibility

Appendix B

81/84

STAFF ASSESSMENT QUESTIONNAIRE

Name________________________________

Position - Assignment________________________________

Degree held BA____ Credit Earned Beyond Degree______

MA____ ______

Other_____ ______

Teaching Certification

Type Credentials ________________ ________________

State in which Certified ______________________

Colleges Attended____________________ Yr.____________________

____________________ Yr.____________________

____________________ Yr.____________________

Special Courses/or Workshops

____________________ Yr.____________________

____________________ Yr.____________________

____________________ Yr.____________________

List the name of Courses taken related to the use of Media in the Classroom.

____

____

____

Specify future Education plans (if any)____________________

____

____

Appendix C

85/86

PUPIL BEHAVIOR AND ATTITUDE CHECK LIST

School__________________, Teacher_________________, Pupil_________________

INSTRUCTIONS: Under each of the four categories, in each of the three groups of traits, check the one trait which best describes the pupil.

1. GENERAL DISPOSITION:

a. ____ usually controlled
____ seldom controlled
____ usually uncontrolled

b. ____ cheerful and outgoing
____ quiet
____ dejected or withdrawn

c. ____ cooperative
____ indifferent
____ defiant

2. GENERAL BEHAVIOR TOWARDS PEERS:

a. ____ likes
____ tolerates
____ rejects

b. ____ friendly
____ reserved
____ quarrelsome

c. ____ considerate
____ unconcerned
____ self-centered

3. ATTITUDE TOWARDS CLASSROOM WORK:

a. ____ very interested
____ interested
____ disinterested

b. ____ painstaking effort
____ makes effort
____ makes no effort

c. ____ actively participates
____ passively participates
____ makes no attempt to participate

4. ATTITUDE TOWARDS HELP IN CLASSROOM:

a. ____ asks for help
____ asks for but does not accept help
____ neither asks for nor accepts help

b. ____ always follows direction
____ usually follows direction
____ seldom follows direction

c. ____ usually completes assignments
____ seldom completes assignments
____ never completes assignments

APPENDIX D

MATERIALS CATALOG

FILM CATALOG

STEWART A/V/C

301.2 I	THE INDUSTRIAL REVOLUTION
301.3 C	CHICAGO
301.3 CR	CRIME IN THE CITIES
301.3 M	MEGALOPOLIS
321.8 D	DEFINING DEMOCRACY
320.1 N	NATIONALISM
325.73 I	IMMIGRATION
328.73 C	THE CONGRESSMAN AT WORK
329 P	POLITICAL PARTIES
329 P	PRESIDENTIAL ELECTIONS
330.947 S	THE SOVIET CHALLENGE; INDUSTRIAL REVOLUTION IN RUSSIA
333.7 H	THE HOUSE OF MAN - OUR CHANGING ENVIRONMENT
347.9 S	THE SUPREME COURT
353.03 P	THE PRESIDENT
364.3 J	JUSTICE UNDER LAW - THE GIDEON CASE
370.1 Y	YOU CAN GO A LONG WAY!
371.42 P	PLANNING YOUR CAREER

386 P	THE PANAMA CANAL - GATEWAY TO THE WORLD
523 E	ECLIPSE OF SUN AND MOON
523.3 T	A TRIP TO THE MOON
525 W	WHY SEASONS CHANGE
529 H	HOW TO MEASURE
530.1 E	EXPLAINING MATTER: ATOMS AND MOLECULES
531 G	GRAVITY: HOW IT AFFECTS US
535.6 C	COLOR
536 H	HEAT - ITS NATURE AND TRANSFER
551.2 V	VOLCANOES IN ACTION
551.3 E	EROSION LEVELING THE LAND
551.4 D	THE DESERT COMMUNITY
551.5 W	WHAT MAKES THE WIND BLOW?
551.5 W	WHAT MAKES CLOUDS?
552 R	ROCKS THAT ORIGINATE UNDERGROUND
553 R	ROCKS THAT FORM ON THE EARTH'S SURFACE
574.1 E	EXPLAINING MATTER: CHEMICAL CHANGE
575 N	NATURAL SELECTION

577 L	LIFE ON THE TUNDRA
581.1 F	FLOWERING PLANTS AND THEIR PARTS
581.1 G	GREEN PLANTS AND SUNLIGHT
581.1 O	OSMOSIS
581.3 S	A STORY OF DISCOVERY; WHY PLANTS BEND TOWARD LIGHT
581.4 R	ROOTS OF PLANTS
581.5 P	PLANT MOTIONS - ROOTS, STEMS, LEAVES
589.9 B	BACTERIA
591.1 E	EXPERIMENTING WITH ANIMALS (White Rats)
591.3 B	BEGINNINGS OF VERTEBRATE LIFE
393 F	THE FIRST MAN-CELLED ANIMALS - SPONGES
594 L	LIFE STORY OF THE SNAIL
595 P	PARASITISM (Parasitic Flatworms)
595.7 I	INTRODUCING INSECTS
595.77 F	FLIES AND MOSQUITOES: THEIR LIFE CYCLE AND CONTROL
595.79 S	SOCIAL INSECTS: THE HONEYBEE
597 F	THE FISH IN A CHANGING ENVIRONMENT
598 M	MIGRATION OF BIRDS (The Canada Goose)
599.3 A	ANIMAL TOWN OF THE PRAIRIE: PRAIRIE DOGS AND THEIR NEIGHBORS

612 B	BLOOD (Unit IV Physiology)
612 D	THE DIGESTIVE SYSTEM
612 E	EYES AND VISION
612 E	THE EARS AND HEARING
612 F	FUNDAMENTALS OF THE NERVOUS SYSTEM
612 H	HEART AND CIRCULATION
612 M	MECHANISMS OF BREATHING
612 S	THE SKELETON
612 Y	YOUR VOICE
612.64 B	BIOGRAPHY OF THE UNBORN
613 C	CONTOURING YOUR FIGURE
613.7 P	POSTURE IN MOTION
623.4 R	ROCKETS: HOW THEY WORK
629.132 A	AIRPLANES: HOW THEY FLY
629.28 D	DRIVE DEFENSIVELY!
631.7 M	MAKING THE DESERT GREEN - IRRIGATION FARMING
634.9 D	DISCOVERING THE FOREST
634.9 S	SCIENCE CONSERVES THE FOREST
634.9 T	TREES AND THEIR IMPORTANCE

636.3	LAMBING (Parturition in the ewe)
662 F	FUELS - THEIR NATURE AND USE
664 W	WHY FOODS SPOIL (molds, yeasts, bacteria)
700 A	AMERICA: THE ARTISTS EYE
701.17 F	FORM
701.17 L	LIGHT AND DARK
701.17 L	LINE
701.17 T	TEXTURE
701.17 W	WHAT IS ART?
741.2 D	DRAWING WITH PENCIL
743 D	DRAWING A PORTRAIT
751.4 B	BRUSH TECHNIQUES (THE LANGUAGE OF WATERCOLOR)
751.4 P	PAINTING SHADOWS
758 W	THE WORKS OF WINSLOW HOMER AND JOHN MARIN
758.9 W	WHITEHOUSE PAINTINGS
761 L	LINES IN RELIEF - WOODCUT AND BLOCK PRINTING
785.06 S	THE SYMPHONY ORCHESTRA
787 S	THE STRING CHOIR

788 B	THE BRASS CHOIR
788 W	THE WOODWIND CHOIR
789 P	THE PERCUSSION GROUP
910.09 B	THE BEGINNINGS OF EXPLORATION
913.32 E	EGYPT: CRADLE OF CIVILIZATION
913.37 L	LIFE IN ANCIENT ROME
914.2 B	THE BRITISH ISLES - THE LAND AND THE PEOPLE
914.6 P	PEOPLE OF SPAIN
915.1 C	CHINA UNDER COMMUNISM
915.2 J	JAPAN - MIRACLE IN ASIA
915.9 M	MEKONG
916 C	CONTINENT OF AFRICA (Lands below the Sahara)
916.1 O	OASIS
917.11 C	CANADA: THE PACIFIC PROVINCE
917.2 S	SPAIN IN THE NEW WORLD - COLONIAL LIFE IN MEXICO
917.5 S	SOUTHEASTERN STATES
917.6 S	SANTA FE AND THE TRAIL

917.7 G	THE GREAT PLAINS - LAND OF RISK
917.7 M	THE MIDDLE STATES
917.8 I	THE INTERIOR WEST: THE LAND NOBODY WANTED
917.0 N	NORTHWESTERN STATES
917.91 S	SOUTHWESTERN STATES
917.98 A	ALASKA: THE 49TH STATE
918.1 A	THE AMAZON: PEOPLE AND RESOURCES OF NORTHERN BRAZIL
918.1 B	BRAZIL: PEOPLE OF THE HIGHLANDS
918.2 A	ARGENTINA: PEOPLE OF THE PAMPA
918.5 P	PERU: PEOPLE OF THE ANDES
920 A	AUDUBON, JOHN JAMES (American Artist)
920 BS	BELLOWS, GEORGE - SHEELER, CHARLES - AMERICAN ARTISTS
920 CL	STORY OF CHRISTOPHER COLUMBUS
920 CM	CATLIN, GEORGE - MILLER, ALFRED - AMERICAN ARTISTS
920 L	MEET MR. LINCOLN
940.1 M	THE MEDIEVAL CRUSADES
940.1 M	THE MIDDLE AGES: CULTURE OF MEDIEVAL EUROPE
940.53 S	SECOND WORLD WAY - ALLIED VICTORY
940.531 S	SECOND WORLD WAY - PRELUDE TO CONFLICT

940.542 S	SECOND WORLD WAY - TRIUMPH OF THE AXIS
948 V	VIKINGS: LIFE AND CONQUESTS
970.1 A	AMERICAN INDIANS OF TODAY
973.1 E	THE ENGLISH AND DUTCH EXPLORERS
973.1 F	FRENCH EXPLORERS: AGE OF EXPLORATION
973.1 S	THE SPANISH EXPLORERS
973.2 C	COLONIAL EXPANSION
973.2 F	THE FRENCH AND INDIAN WAY - SEVEN YEARS' WAR IN AMERICA
973.2 P	THE PILGRIMS
973.4 L	THE LOUISIANA PURCHASE - KEY TO A CONTINENT
974 N	NORTHEAST: HEADQUARTERS FOR A NATION
974.4 E	EARLY SETTLERS OF NEW ENGLAND (Salem, 1626-1629)
975.3 W	WASHINGTON D.C. CAPITAL CITY, USA
975.5 J	JAMESTOWN (THE FIRST ENGLISH SETTLEMENT IN AMERICA)
976.4 W	WESTWARD MOVEMENT IV - TEXAS AND THE MEXICAN WAR
977 W	THE WESTWARD MOVEMENT I: Settlers of the Old Northwest Territory
977 W	THE WESTWARD MOVEMENT II: Settlement of the Mississippi Valley
970 O	THE OREGON TRAIL
979.4 W	WESTWARD MOVEMENT V - The gold rush

FILMSTRIP SERIES AND FILMSTRIP COMBINATIONS

INDEX	NO.
Action Stories: Disney	9000
Alaska: Frontier State	9480
American Authors	8720
American History	7240
American Poets	8020
American Revolution: A Picture History	8850
Ancient American Indian Civilizations	11090
Ancient Rome	10860
Artic Wilderness	8550
Art's and Crafts	7940
Atomic and Molecular Models	9190
Audubon's Birds of America	7520
Band Instrument Care	11020
Beginning Grammer	8840
Builders of America	8930
Classics of Medieval English Literature	10510
Classification of Invertebrate Animals	10580
Classification of Plants	10640
Contemporary American Painting	7280
Constructing Reports	7620
Dog Stories	9810
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APPENDIX E

CIRCULATION RECORD FORM
AND
EVALUATION FORMS

CIRCULATION RECORD FORM

YEAR____________ TEACHER____________________________

Month	16mm	Fs.	Records	Slides	Tapes	Prints	Equip.	Misc.	Total
Sept.									
Oct.									
Nov.									
Dec.									
Jan.									
Feb.									
March									
April									
May									
June									
July									
Aug.									

MEDIA CENTER

Filmstrip Appraisal Form

Name__________________________

Date__________________________

Exact Title____________________ Producer______________________

Film Copy Number_____________Sound or Silent____________________

B & W or Color_______________Physical condition of Film________

Give a short description of the content of the filmstrip:

At what level could this filmstrip be used?

What purposes might the filmstrip serve?

What is over-all evaluation of this filmstrip?

Excellent_____Good_____of Little Value______ Not Usable_____

Ideas for developing readiness with the class:

MEDIA CENTER

16 mm Film Appraisal Form

Name______________________________

Date______________________________

Exact Title___________________________Producer__________________

B & W or Color____________Film Copy Number_____________________

Physical condition of Film______________________

Give a short description of the content of the film:

At what level(s) could this film be used?

What purposes might the film serve?

What is over-all evaluation of this film?

Excellent____Good_____of Little Value_____Not Usable______

Ideas for developing readiness with the class:

APPENDIX F

BUDGET PROJECTION

MEDIA CENTER
Stewart Indian School

Budget: Five Year Projection

Yearly

Equipment- - -	$ 12,980.00
Software - - -	17,100.00
Expendable - -	4,500.00
Maintenance- -	2,500.00
Misc. - - -	1,500.00
	$ 38,580.00

71/72	72/73	73/74	74/75	Total
$38,580	38,580	38,580	38,580	154,320.00

$154,320.00	Total 5-year
47,672.00	70/71
$201,992.00	
17,650.00	Video Equipment
$219,642.00	Five Year Total

MEDIA CENTER Budget

List of hardware and software items and miscellaneous, including recommendations for 1970-71.

Expenditure for:	expendable items - - - -	$ 3,700.00
	misc. items - - - -	1,152.00
	Maint. of equipment, labor	1,500.00
	Maint. of " " , parts	600.00
	Total equipment purchase	$ 6,952.00

MEDIA CENTER Budget

List of hardware and software items and miscellaneous, including recommendations for 1970-71.

Expenditure for:

expendable items - - - -	$ 3,700.00
misc. items - - - -	1,152.00
Maint. of equipment, labor	1,500.00
Maint. of equipment, parts	600.00
Total equip. purchase- -	17,040.00
Total software purchase-	23,500.00
1970-71 Total	$ 47,492.00

MEDIA CENTER Budget

SOFTWARE:

Type	No. on hand	70/71	yearly 71/72	Standards- - - - - -	
				BIA	ALA
16mm	147 (lease)- - -	$3,000.00	$6,500.00		3,000 print acces
8mm sound (incl.16 mm sound)		3,500.00 Included in $3,500.00 budget			
8mm Single	232	250 (20.00) $5,000	2,000.00	500	750
F/Strips	692	1,000 (6.50) $6,500	3,200.00	2,000	1,500
Transparencies		500 (2.00) $1,000.00	400.00	2,000	2,000
Tapes & Discs	70	500 (6.00) $3,000	2,500.00	3,000	3,000
Art Prints Study"	00	200 $1,000	1,000.00		1,000
Globes & Maps	5	20 $500	500.00		45
Microfilms			1,000.00		
Slides		200.00	200.00		2,000
		$23,700.00	$17,300.00		

MEDIA CENTER Budget

EQUIPMENT:

Type	No. on hand	70/71	71/72	Standards - - - - - -	
				BIA	ALA
16mm	5	6 (600.00) $3,600	3 $1,800.00	23	14 - 27
8mm super single-	4	10 (105.00) $1,050	10 $1,050.00	45	30 - 70
Sound F/S Projector	5	2 (350.00) $700.00	2 $700.00		6 - 11
F/S Proj.	4	10 (70.00) $700.00	10 $700.00	25	16 - 49
F/S Viewer (indiv.)	1	20 (30.00) $600.00	20 $600.00		60 -180
Cassette Recorder (indiv.)	00	20 (60.00) $1,200.00	20 $1,200.00		
Cassette Recorder (Classroom)	00	6 (150.00) $900.00	6 $900.00		
Tape Recorder	17	3 (150.00) $450.00	1 $150.00	10	7 - 24
Record Player	12	4 (70.00) $280.00	2 $140.00	8	6 - 14
8mm sound	00	1 (350.00) $350.00	2 $700.00		
Overheads	16	6 (100.00) $600.00	4 $400.00	35	47 - 49
Opaque	3	00			
Carrels	18	10 (120.00) $1,200.00	2 $240.00	4	4 - 5
	Page totals	$11,630.00	$8,580.00		

MEDIA CENTER Budget

EQUIPMENT:

con't.

Type	No. on hand			Standards - - - -	
				BIA	ALA
Slide Proj.	3	4 (80.00) $320.00	4 $320.00	42	10 - 46
Screens (Wall)	13	6 (30.00) $180.00	5 $150.00		45
Screens (port.)	2	6 (30.00) $180.00	2 $60.00		10
Listening Sta.	5	2 (80.00) $160.00	2 $160.00	12	15 - 45
Micro Reader	0	2 (155.00) $310.00	2 (?) $310.00		5 - 10
Micro-Proj.	0	1 $300.00			
Video - Recorder System including Camera	2	1 Port. 1 Reg. $3,795.00	$3,500.00 (see attachment)		3 - 9
Microphones (Sound system		3 (55.00) $165.00	$250.00		
Page totals		$5,410.00	$4,750.00		
Grand Totals		$17,040.00	$13,330.00		

MEDIA CENTER

Video Equipment:

The following equipment and installation would be necessary in order to set up a production video studio and to wire the classrooms in the main building for closed circuit TV.

Video Recorders Sony 5000 model or equivalent	2@	$1,500.00	$3,000.00
Cameras Sony Cv-3200 or equivalent	2@	700.00	1,200.00
Camera Dollies & Tripods	2@	200.00	400.00
Colortran Lights (Studio) Kit	1@	800.00	800.00
Rack Mounts for Equipment	2@	200.00	400.00
View Monitors Rack Mounted	3@	200.00	600.00
Special Effects Generator	1@	1,200.00	1,200.00
Switching equipment		300.00	300.00
Microphones and stands	3@	100.00	300.00
Cable and installation for studio		1,000.00	1,000.00
Monitors for classrooms	20@	200.00	4,000.00
Coax. cable install in rooms	20@	150.00	3,450.00
Minin-Mod & head in equipment		500.00	500.00
Antenna System		500.00	500.00
		Total	$17,650.00

MEDIA CENTER

Video Equipment

con't.

The following video equipment is available at present and should be used to supplement the closed circuit system.

1 Video recorder
1 18" Monitor
1 Studio camera kit
1 Portable camera & battery pack

The following supplemental equipment should be considered for purchase to augment the present program if the closed circuit system is delayed.

1 Sony 3400 Portable camera or equivalent	1,495.00
1 AC adaptor for camera	55.00
1 Camera adaptor	95.00
Studio Lights	150.00

MEDIA CENTER

Library Needs:

Item	on hand	70/71	Standard
Books	4,800	1,500 ($5.00) $7,500.00	10,000
Periodicals		50 ($10.00) $500.00	175
Newspapers		6 ($4.00) $24.00	6 - 10
Prof. Library	100	100 ($10.00) $1,000.00	1,000
Magazines		50 ($10.00) $500.00	150
	Book Total	$9,524.00	
Supplies		500.00	
Furniture		1,000.00	
		$11,024.00	

APPENDIX G

AN UNORTHODOX BIBLIOGRAPHY
OF CALIFORNIA
--AND RELATED--
INDIAN MATERIALS

AN UNORTHODOX BIBLIOGRAPHY
OF CALIFORNIA--AND RELATED--INDIAN MATERIALS

This is not a list for scholars but for those who wish sources in a hurry. Whenever possible, inexpensive paperbacks with last known price are cited rather than first publication dates and firms. Those who wish in-depth information should check references in the back of such books as Farb and Driver. The local librarian can assist in borrowing out-of-print items from the State Library.

Indispensable References

Farb, Peter--Man's Rise to Civilization as Shown by the Indians of North America from Primeval Times to the Coming of the Industrial State. E. P. Dutton & Co., 201 Park Ave., New York 10003.

Kroeber, Alfred--Handbook of the Indians of California. Calif. Book Co., Berkeley, Calif. 94704 (all peoples of the state)

Heizer-Whipple--The California Indians. U. of Calif. Press

Underhill, Ruth--Red Man's America. U. of Chicago Press, 5750 Ellis Ave., Chicago 60637

Underhill, Ruth--Red Man's Religion. U. of Chicago Press

Hodge, Frederick W.--Handbook of American Indians North of Mexico. (2 vol.) Rowman & Littlefield, 84 Fifth Ave., N.Y.

California Indian Education (report of an all-Indian conference) Calif. Ind. Education Assn., 1349 Crawford Rd., Modesto 95350

Indian Publications

The Indian Historian. Published quarterly by Am. Indian Historical Society, 1451 Masonic Ave., S. F., Calif., 94117, (a year) $4.00

Indians Illustrated. 8162 Eighth St., Buena Park, Calif. 90620 (a year) $5.00

Write, asking for your school library to be put on the mailing list for Native American Arts, publ. by Indians Arts & Crafts Board, U.S. Dept. of Interior, Bureau i.e. Indian Newsletter.

California

From: Univ. of California Press, Berkeley, Calif. 94720:

Grant, Campbell--Rock Paintings of the Chumash, (color plates; stunning portrayal of aboriginal art)

Heizer-Baumhoff--Prehistoric Rock Art of Nevada and Eastern California

Black Indian Biblio.

Heizer-Elsasser--Aboriginal California
Heizer--Languages, Territories, Names of Calif. Indian Tribes
Kroeber, Theodora--The Inland Whale (Cal. Indian legends)
Kroeber, Theodora--Ishi, in Two Worlds
Merriam, C. Hart--Studies of California Indians

From Malki Museum, Morongo Indian Res., Banning, Calif. 92220

Barros, David P--Ethnobotany of the Coahuilla Indians, Four brochures @ 75¢ ea., as follows:
G. Anderson--The Chumash, Bean-Lawton--The Cahuilla, F. Johnson--The Serrano, R. & P. Miller--The Chemehuevi, (Ethnobotany)

From Southwest Museum, Highland Park, Los Angeles 90042:

Densmore, Frances--Music of the Maidu
Johnston, Bernice--California's Gabrielino Indians
Landberg, Leif--Chumash Indians of So. California
Terrell, John U--Traders of the Western Morning
Several leaflets @ 25¢ ea. such as: Mohave Etiquette; Ancient Tribes of Boulder Dam Country; Mohave Tattooing & Face Painting

From University & College Special Publications:

Charters, Constitutions, & By-Laws of the Indian Tribes of North America. Part VII; California. Museum of Anthropology, Colorado State College, Greeley, Colo. 80631

Gifford, Edward W.--The Coast Yuki. Sacramento Anthro. Society, Sacramento State College, Sacramento 95819

Merriam, C. Hart--Ethnographic Notes on Central Calif. Indian Tribes., U. C. Archaeological Research Facility, Dept. of Anthropology, U. Calif., Berkeley

Wilson, Birbeck--Ukiah Valley Pomo Religious Life, etc., A.R.F. Univ. of Calif., Berkeley (as above)

(Note: U. C. publications in American Archaeology & Ethnology Vols. L-40 available from Kraus Reprint Cor., 16 E. 48th St., New York, N.Y. 10017)

Miscellaneous Titles re. California Indian People:

Austin, Mary--Land of Little Rain. (Owens Valley teacher in 1890's discovers values in native cultures) Doubleday

Downs, James F.--Two Worlds of the Washoe, Holt, Rinehart & Winston (address under "other cultures.")

Forbes, Jack--Warriors of the Colorado. U. Oklahoma Press

Kroeber, T. & Heizer--Almost Ancestors. Sierra Club Books, Borough of Totowa, Paters. N. J. 07512

Latta, F. F.--Handbook of the Yokuts Indians. Bear State Books, Gazos Ranch, Pescadero, Calif.

Ray, Verne F.--Primitive Pragmatists. U of Washington Press, Seattle 98105 (about the Modoc)

Rogers, Malcolm--Ancient Hunters of the Far West. Union-Tribune Pub. Co., 940 3rd Ave., San Diego 92112 (California desert people)

Lawton, Harry--Willie Boy, Paisano Press, Box 85, Balboa Island, Calif. 92662 (So. Calif. Paiute lad has trouble with law, leads it on renowned chase. semi-fiction)

Neihardt, John--Black Elk Speaks. U. Nebraska Press. (Poetic life story of holy man of Oglala Sioux)

Parsons, Elsie--American Indian Life. U Nebraska. Tales of representative Indian groups, including Calif.

Pietroforte, A.--Songs of the Yokuts & Paiutes. Nautregraph Publishers, 8339 W. Dry Creek Rd., Healdsburg, Calif. 95448

Simmons (ed)--Sun Chief, autobriography of a Hopi. Yale Univ. Press, 149 York St., New Haven, Conn. 06511

Vogel, Virgil--American Indian Medicine, U. of Oklahoma Press

Wheat, Margaret--Survival Arts of the Primitive Paiutes, U. Nevada Press, Reno, Nev. 89507 (Wonderful photos)

Prehistory

Driver, Harold--Americas on the Eve of Discovery. Prentice-Hall (accounts of 11 different people)

Hopkins, D. M.--The Bering Land Bridge. Stanford U. Press, Stanford, Calif. 94305 (Scientists discuss this theory)

Macgowan-Hester--Early Man in the New World. Doubleday & Co., 501 Franklin, Garden City, N.Y. 11530 (Migration & Evidence)

Wormington, H. M.--Ancient Man in North America. Denver Museum of Natural History, City Park, Denver 80206

Other Cultures

Under "Bison Books" label, U. of Nebraska Press, Lincoln, Neb. 68508 publishes many paperbacks in addition to those noted above. Many are biographies of famous Indians, such as:

Crazy Horse, by Sandoz. . . Saynday's People (Marriott), Blackfoot Lodge Tales . . . Pawnee Hero Stories, both by Grinnell . . . Indian Languages by Boaz & Powell, etc.

Holt, Rinehart & Winston, Box 3599, Grand Central Station, N.Y. 10017 publishes "Case Studies in Cultural Anthropology." Each volume is devoted to one culture. In addition to "Washoe" noted above: Hano, a Tewa Indian Community, by Edward Dozier & The Cheyennes by E. A. Howbel.

Publications Service, Haskell Institute, Lawrence, Kansas 66044, distributes gov't series of Indian Life Readers (Navajo, Sioux, Pueblo, etc.) Delightful Indian stories from pre-primer up. Illus. by Indian artists. Excellent Indian Life & Customs & Indian handicraft books included. Very low prices. Send for price list.

Driver, Harold E.--Indians of North America. U. Chicago Press. Deserves reference shelf place. Comprehensive coverage, cultures

Drucker, Philip--Indians of the Northwest Coast. Doubleday

Lowie, Robt. H.--Indians of the Plains. Natural History. History Press, Garden City, N.Y. 11531

Underhill, Ruth--Indians of So. Calif. (address under Haskell Institute publications)

Underhill, Ruth--Northern Paiute Indians

Indians in Rural and Reservation Areas--progress report by the State Advisory Commission on Indian Affairs (S.B. #1007) Feb. 1966 (ask your legislator to obtain a copy) few errors of fact but generally good picture of Calif. Indians in 1965.

Indian Problems

Andrist, Ralph K.--The Long Death. Collier Books, 866 Third Ave., New York 10022

Brophy-Aberle--The Indian--America's Unfinished Business. U. Oklahoma Press

Dale, E. E.--Indians of the Southwest, U. of Oklahoma Press

Every, Dale Van--The Disinherited. Wm. Morrow & Co.

Forbes, Jack--Indian in America's Past. Prentice-Hall, Englewood Cliffs, N.J.

Fey-McNickle--Indians and Other Americans. Harper & Row 49 E. 33rd St., N.Y. 10016

Jackson, Helen H.--A Century of Dishonor. Harper Torchbook. Hard cover from Peter Smith, Magnolia, Mass.

Johnson, Kenneth--K-344; or Indians of California vs. the United States. Dawson's Book Shop, 550 So. Figueroa, L. A. 90017

McNickle, D/Arcy--Indian Tribes of the U.S.: Ethnic & Cultural Survival. Oxford U. Press, 200 Madison, N.Y. 10016

Washburn, Wilcomb E.--Indian & the White Man. Doubleday

Art, Music, Myth, etc.

Astrov, Margot--American Indian Prose & Poetry. A capricorn book of G. P. Putnam Sons, 200 Madison Ave., N.Y. 10016

Alexander, H.B.--North American Mythology. Cooper Square Publishers, 59 4th Ave., N.Y. 10003

Alexander, H.B.--The World's Rim. U. Nebraska Press (for address see below). Mysteries of American Indians.

American Heritage Book of Indians. Simon & Schuster, Inc., 630 Fifth Ave., N.Y. 10020

Covarrubias, Miguel--The Eagle, the Jaguar, & the Serpent. Knopf, 501 Madison Ave., N.Y. 10022 (art of Americas)

Dockstader, Frederick--Indian Art in America. N.Y. Graphic Society, 140 Greenwich Ave., Greenwich, Conn. 06830

Dunn, Dorothy--American Indian Painting of Southwest & Plains Areas. U. of New Mexico Press, Albuquerque,, N.M. 81706 (by the founder & teacher of Santa Fe Indian Art School)

Roessel, Robt. A.--Handbook for Indian Education. Amerindian Pub. Co., 1826 N. Sierra Bonita, L.A. 90046. Arizona Indians but useful ideas for any group. By the distinguished head of Rough Rock School & Navajo Community College.

Wolf, Eric--Sons of the Shaking Earth. U. Chicago Press. Mexico from prehistory to present. Excellent perspective on Mexican civilizations. Lively reading.

University of Oklahoma Press, Norman, Okla. 73069, has an extensive list of titles in an "American Indian" series.

Cultures

Teachers with no anthropological training are advised to do some reading in one or more of the many books on this topic. At the secondary level it might be wise to open any course in Indian cultures with a few lecture-discussions on the origin, meaning and manifestations of culture in general. The following books are clear and helpful expositions of the topic:

Brown, Ina Corrinne--Understanding Other Cultures. Prentice-Hall. An excellent basic book on how to look at the ways of other people. Could be read with profit by many teachers, also high school juniors and seniors.

Schusky-Culbert--Introducing Culture. Prentice-Hall.

Thompson, Laura--The Secret of Culture. Random House.

Juvenile

Capron, Louis--"Florida's Emerging Seminoles". National Geographic; Nov. '69. Life as it is today.

Fischer, Anne B.--Stories California Indians Told. Parnassus Press, 2422 Ashby, Berkeley, Calif. 94705. There has been an objection to some remark in the foreward.

Fletcher, Sidney--The American Indian. Grosset; 1954

Graff, Henry T.--Free and the Brave. Rand McNally; with workbook; 1968.

Harvey, Lois--Toyanuki's Rabbit. Melmont Pub., (Children's Press), 1224 W. Van Buren, Chicago 60607. Grades 2-4 Paiute.

Kroeber, T.--Ishi, Last of his Tribe. Parnassus Press. 4-8

McNichols, C. L.--Crazy Weather. U. Nebraska Press. Friendship of Mohave & White boys. Excellent cultural view. Teen-age

Manning, Phyllis--Spirit Rocks & Silver Magic. Caxton Printers, Caldwell, Idaho. Navajo teen-ager meets modern discoveries. Teen-age. Illustrated by Andy Tsinajinie, noted Navajo artist.

Montgomery, Jean--Wrath of Coyote. Wm. Morrow, 425 Park Ave., N.Y. 10016. Chief Marin, of Miwoks, & revolt against Spanish.

Pollock, Dean--Joseph, Chief of the Nez Perce. Binfords & Mort, 2505 SE 11th Ave., Portland, Ore. Best on Joseph. Grade 7-9

Sales & Stevens--Throw Stone. Reilley & Lee, 201 E. North Water, Chicago 60611. Soundly based story of first boy on this continent. Jr. Hi. level up.

Sayles & Stevens--Little Cloud & the Great Plains Hunters. Reilley & Lee. What & where a stone age boy may have hunted. Jr. Hi & up. Sayles is noted archaeologist. Both books based on deductions from evidence.

Verral, Charles Spain--Broken Arrow. Simon and Schuster; 1957. Story of white and Apache boy.

Books about Navajo culture and life; Coyote Legends, History of Rough Rock; Grandfather Stories; Honnie of Black Mountain (story of average Navajo); and Denetosie (about famous medicine man). Order from the Navajo Curriculum Center, Rough Rock, Arizona 86503.

Indian Crafts and Lore, book; Order from Children's Music Center, 5373 W. Pico Blvd., L.A. 90019

Indian and Eskimo Children, 50 pp., close-up photos of life as now lived from wickiup to ranch-style suburbia. Order from Superintendent of Documents. Discount on larger orders.

Navajo Readers: 5 small booklets about Dan and His Pets and 2 about Joe and His Happy Family. Order from Mr. Wallace Cathey, P. O. Box 697, Shiprock, N.M. 87420.

Additional material: May, 1969, Region #2 CIEA, Susanville, California.

College Elementary School Library--Bibliography--Indians of Northern California, prepared by C.E.S. Librarian 2/69.; courtesy of the California Teachers' Assn.

Selected Bibliography on Indian Education..compiled by James E. Heathman & Stanley R. Wurster; Education Resources Information Center, Clearing house on Rural Education and Small Schools ERIC/CRESS New Mexico State University..12-1968.

Vogel, Virgil J.--The Indians in American History...Integrated Education Associates, 343 South Dearborn St., Chicago, Ill., 60604 (Bibliography in the back, only 50¢ from the publisher; better send some postage; a discount given for quantity orders.)

Among other things recommended:

Indians of San Joaquin County..researched, compiled, and illustrated by Mrs. Medora Johnson for the San Joaquin County Schools. (This is an excellent effort on the part of the San Joaquin schools to put local Indian history and culture into the hands of their teachers and students.)

Uses of Native Plants by Nevada Indians--Compiled by Flo Reed for the State of Nevada Dept. of Education, Carson City, Nev. (free copy for asking). It has been suggested that this type of work-up could make very interesting project for a school with many different departments cooperating in the venture; local Indian people could be of valuable assistance.

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Audio-Visual

FILMS

Hopi Indian Village Life, color or b/w (pri. gr.). Shows a blending of old and new ways. Coronet Films, 65 E. South Water Street, Chicago, Ill. 60601.

Indian Artists of the Southwest, color, produced by Contemporary Films, Order from McGraw-Hill Films, 330 W. 42nd Street, New York, N.Y. 10036. Art from early petroglyphs to now.

Indian Boy of the Southwest, color or b/w. Bailey Film Associates, 11559 Santa Monica Blvd., Los Angeles, Calif. 90025. Reveals how Hopis are keeping old ways and new.

Indian Family of the California Desert, color; distributed by Encyclopedia Britannica Educational Corporation, 425 N. Michigan Avenue, Chicago, Ill. 60611. Shows how Cahuilla Indians have wisely adapted to their environment.

Indian Influences in the United States, color or b/w; Coronet Instructional Films.

Indians of the Plains--Present Day Life, color; produced by Academy Films; distributed by Bailey Film Associates (address above). Close-ups of daily life of the Blackfoot Indians.

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The American Indian Today (study of the Navajo), 6 strips in color; 6 records; teacher's guide. Warren Schloat Productions, Inc., Palmer Lane West, Pleasantville, N.Y. 10570.

Indians of the Plains--Present Day Life, Super 8mm; Doubleday Multimedia, 1371 Reynolds Avenue, Santa Ana, Calif. 92705. Home life, schooling and work of the Blackfoot.

Music of the Sioux and the Navajo, No. 4401, 12" LP; Folkways/Scholastic Records, 906 Sulvan Avenue, Englewood Cliffs, N.J. 07632. Fourteen traditional and contemporary songs show vitality of modern Amerindians.

Write: Extension Media Center, University of California, 2223 Fulton, Berkeley, California 94720, for catalog of films about Indians. Some dandies about acorns, pinenuts, Pomo baskets, etc., for rental.